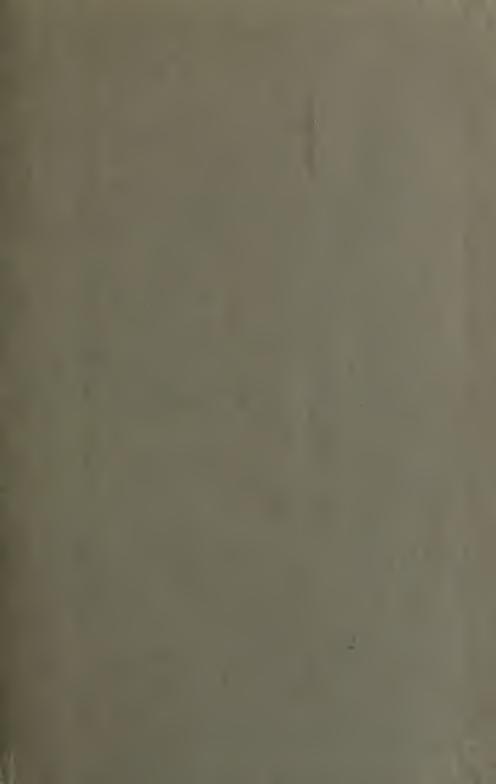
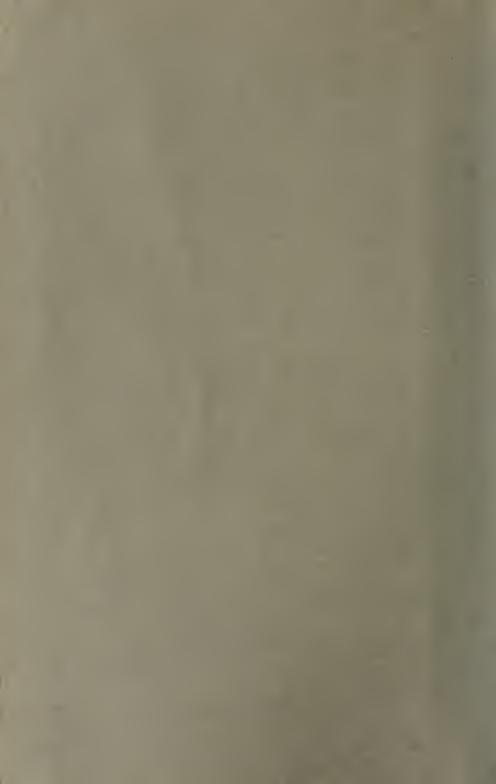


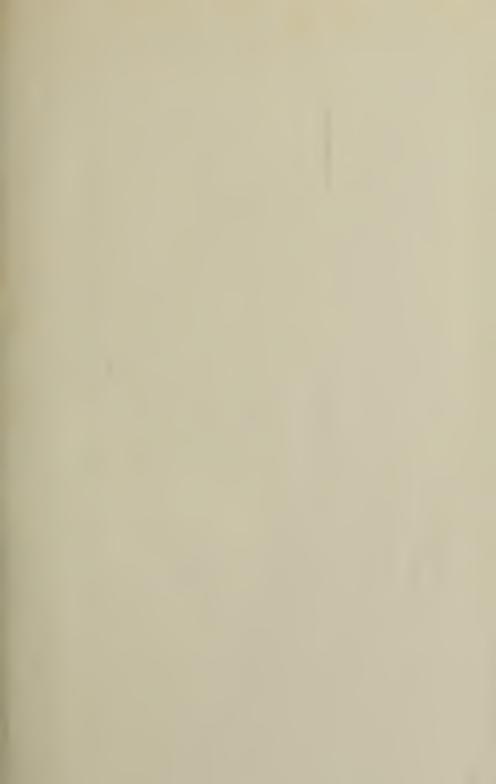
DUKE UNIVERSITY

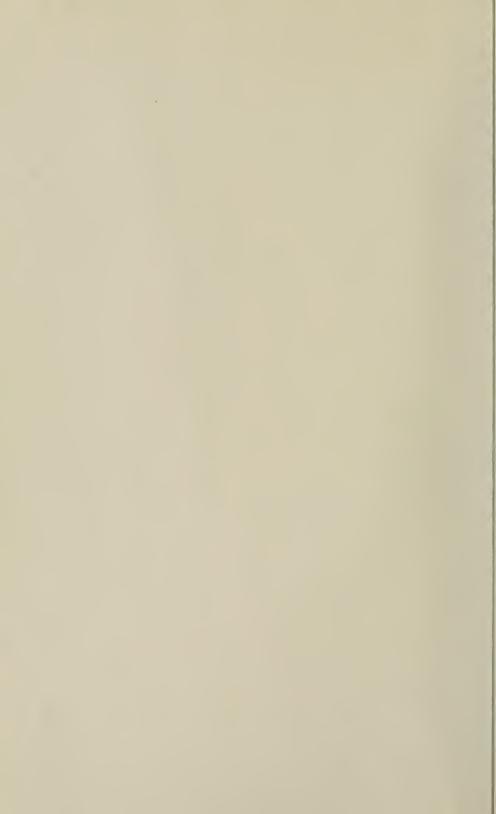


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NUMBER 1

BULLETIN OF DUKE UNIVERSITY

The School of Medicine
1940



PUBLISHED BY THE UNIVERSITY DURHAM, NORTH CAROLINA

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BULLETIN

OF

DUKE UNIVERSITY

THE SCHOOL OF MEDICINE



1940

DURHAM, NORTH CAROLINA 1940

FOREWORD

This bulletin is issued for prospective medical students. Admissions into any class are made only on the understanding that every decision of the Executive Committee shall apply to all students, even though it is made subsequently to their enrollment in the School. At frequent intervals the Executive Committee reviews the records of all students, and those whose progress has been unsatisfactory may be required to leave the School. Only those will be advanced who, in the opinion of the executive committee, give promise of being a credit to themselves and to the school. Students who wish to study at other medical schools during one or more quarters must have their programs approved, in advance, by the Curriculum Committee and, on their return, must present evidence that they have completed successfully work comparable to that of the curriculum during the quarters in which they were away.

1940			
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SCHOOL OF MEDICINE CALENDAR, 1940-1941

1940

- Oct. 3. Thursday—Registration of students, and Autumn Quarter begins.
- Nov. 28. Thursday—Thanksgiving: a holiday.
- Dec. 21. Saturday-Autumn Quarter ends.

1941

- Jan. 2. Thursday—Registration of students, and Winter Quarter begins.
- March 15. Saturday-Winter Quarter ends.
- March 24. Monday-Registration of students, and Spring Quarter begins.
- April 14. Easter Monday: a holiday.
- June 2. Monday—Commencement.
- June 7. Saturday—Spring Quarter ends.
- June 16. Monday—Registration of students, and Summer Quarter begins (Junior-Senior students).
- July 4. Friday—Independence Day: a holiday.
- Aug. 30. Saturday—Summer Quarter ends.
- Oct. 2. Thursday—Registration of students, and Autumn Quarter begins.
- Nov. 27. Thursday—Thanksgiving: a holiday.
- Dec. 20. Saturday-Autumn Quarter ends.

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HELEN I. STOCKSDALE
Recorder of the School of Medicine

* Deceased, October 16, 1940.

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TROGLER FRANCIS ADKINS, M.D., Assistant in Obstetrics and Gyne-M.D., Duke, 1936; Int. in Surg., Jan.-July, 1937, and Int. and Assistant Resident in Obstetrics and Gynecology, Duke Hospital, 1937—

- F. VERNON ALTVATER, A.B., A.M., Associate in Hospital Administration.
 A.B. and A.M., Duke, 1930 and 1932; Ass't. Sup't. and Superintendent, Duke Hospital, 1930—
- EDWIN PASCAL ALYEA, S.B., M.D., Associate Professor of Surgery in S.B., Princeton, 1919; M.D., Johns Hopkins, 1923; Int. in Med.; Int. and Ass't. Res. in Surg.; Ass't. Res. and Res. in Urol., Johns Hopkins Hosp., 1923-1929; Ass't. and Instr. in Surg., and Instr. in Urol., Johns Hopkins Med. Sch., 1925-1930; Urologist, Duke Hospital, 1930—
- WILLIAM BANKS ANDERSON, A.B., M.D., Associate Professor of Surgery in Charge of Ophthalmology.

 AB., Univ. of North Carolina, 1920; M.D., Johns Hopkins, 1924; Int., Union Memorial Hosp., Baltimore, 1924-1925; Int., Massachusetts Eye and Ear Infirmary, 1925-1927; Ophthalmologist, Duke Hospital, 1936—
- JAY MORRIS ARENA, B.S., M.D., Assistant Professor of Pediatrics.
 B.S., West Virginia, 1930; M.D., Duke, 1932; Int. in Ped., Johns Hopkins Hosp., 1932-1933; Ass't. and Instr. in Pediatrics, Duke Med. Sch., 1933-1935; Ass't. Res., Res., and Assistant Pediatrist, Duke Hospital, 1933-
- RALPH A. ARNOLD, B.A., M.D., Instructor in Otolaryngology and Ophthalmology. B.A., Rochester, 1932; M.D., Buffalo, 1936; Int. in Stud. Health, and Int., Ass't. Res. and Resident in Otolaryngology and Ophthalmology, Duke Hospital, 1936—
- THEODORE W. ATWOOD, A.B., D.M.D., Associate in Dentistry.
 A.B., Duke, 1928; D.M.D., Harvard, 1932; Int. in Dentistry, Johns Hopkins Hosp., 1932-1934; Dentist, Duke Hospital, 1934—
- HERMAN GLENN BAITY, Sc.D., Lecturer in Public Health,
 A.B. and S.B. in C. E., North Carolina, 1917 and 1922; M.S. and Sc.D., Harvard,
 1925 and 1928; Professor of Sanitary and Municipal Engineering, Univ. of North
 Carolina; 1938—
- LENOX DIAL BAKER, M.D., Associate in Orthopaedics.
 M.D., Duke. 1933; Int. in Orth. Surg. and in Gen'l. Surg.; Ass't. Res. in Orth. Surg. and Res. in Orth., Johns Hopkins Hosp., 1933-1937; Res., Children's Hospital School, 1936; Ass't. and Instr., Orth. Surg., Johns Hopkins Med. Sch., 1935-1937; Assistant Orthopaedist, Duke Hospital, 1937—
- ROGER DENIO BAKER, A.B., M.D., Assistant Professor of Pathology.
 A.B., Wisconsin, 1924; M.D., Harvard, 1928; Ass't. Res. Pathologist, Johns Hopkins Hosp., 1928-1930; Ass't. in Path., Johns Hopkins Med. Sch., 1928-1929; Instr., 1930-1932, and Instr. in Path., Duke Med. Sch., 1932-1934; Assistant Pathologist, Duke Hospital, 1930—
- RUTH ELIZABETH BARKER, A.B., M.S., Instructor in Medical Social

A.B., Nebraska, 1928; M.S., Western Reserve, 1933; Med. Soc. Worker, University Hospitals, Cleveland, O., 1933-1935, and Washington University Clinics and Allied Hospitals, St. Louis, Mo., 1935-1937; Supervisor, Med. Serv. of Social Serv. Dept., University Hospitals, Cleveland, 1937-1940; 1940—

GEORGE JAY BAYLIN, A.B., M.D., Instructor in Anatomy and in Radi-

A.B., Johns Hopkins, 1932; M.D., Duke, 1937; Ass't. in Anat., Duke Med. Sch., 1934-1937; Int. in Surg., Sinai Hosp., Balto., 1937-1938; Voluntary Ass't. in Path., Guy's Hosp., London, Sept., 1938-Feb., 1939; Instructor in Anatomy, Duke Medical School, and Ass't. Res. and Resident in Radiology, Duke Hospital, 1939—

- DOROTHY WATERS BEARD, R.N., Research Assistant in Experimental Surgery
 - Surgery. R.N., Vanderbilt, 1929; Supervisor, Surg. Service, Vanderbilt Univ. Hosp., 1929-1931; Postgraduate Course in Surg., Charity Hosp., New Orleans, 1931-1932; 1938—
- JOSEPH W. BEARD, B.S., M.D., Assistant Professor of Surgery in Charge of Experimental Surgery.
 - Vanderbilt Univ. of Chicago, 1926; M.D., Vanderbilt, 1929; Ass't. and Instr. in Surg., Vanderbilt Univ. Med. Sch., 1930-1932; Int., Ass't. Res. and Res. in Surg., Vanderbilt Univ. Hosp., 1929-1932; Ass't. in Path. and Bact., Rockefeller Institute for Med. Research, N. Y. City, 1932-1935; Assoc. in Path. and Bact., Rockefeller Institute for Med. Research, Princeton, 1935-1937; Assistant Surgeon, Duke Hospital, 1937—
- RUTH BRUCE BENNETT, A.B., M.S.S., Assistant in Medical Social Service.
 A.B., Duke, 1934; M.S.S., Smith, 1936; 1940—
- FREDERICK BERNHEIM, A.B., Ph.D., Associate Professor of Physiology and Pharmacology.
 A.B., Harvard, 1925; Ph.D., Cambridge, 1928; Nat. Res. Council Fellow, Johns Hopkins Med. Sch., Dept. of Physiol. Chem., 1929-1930; 1930—
- MARY LILIAS CHRISTIAN BERNHEIM, B.A., M.A., Ph.D., Assistant Professor of Biochemistry.
 B.A., M.A. and Ph.D., Cambridge, 1925, 1927 and 1929; Fellow Newnham College, 1927-1930; 1930—
- EMIL CHARLES BEYER, Assistant in Anatomy.
- WILLIAM ZIEGLER BRADFORD, B.S., M.D., Assistant Professor of Obstetrics and Gynecology, and Director, Outside Obstetric Service, Charlotte, N. C.
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- WILLIAM STERRY BRANNING, B.S., M.D., Assistant in Biochemistry. B.S., North Carolina, 1934; M.D., Yale, 1939; Int. in Pediatrics, Duke Hospital, 1939-1940; Assistant Resident in Biochemistry, Duke University School of Medicine, 1940—
- HAROLD WILLIAM BROWN, A.B., M.S., Sc.D., Dr. P.H., M.D., Professor of Preventive Medicine and Public Health.
 A.B., Kalamazoo, 1924; M.S., Kansas State, 1925; Sc.D., Johns Hopkins, 1928; M.D., Vanderbilt, 1933; Research Associate, Vanderbilt Medical Sch., 1927-1934; London School of Hygiene and Tropical Medicine, 1934-1935; Dr. P.H., Harvard, 1936; P.A. Surgeon, U. S. Public Health Serv., 1936-1937; Professor of Public Health, Univ. of North Carolina, 1938—
- JASPER LAMAR CALLAWAY, B.S., M.D., Associate in Dermatology and Syphilology.
 M.D., Duke, 1932; B.S., Alabama, 1935; Ass't. Instr. in Derm. and Syphil., Univ. of Pennsylvania Med. Sch., 1932-1933; Int. and Ass't. Res. in Med., Duke Hosp., 1933-1935; Instr. in Phys. Diag. and Path., Univ. of Alabama, Jan.-July, 1935; Instr. in Derm. and Syphil., Univ. of Pennsylvania Sch. of Med., 1935-1937; Ass't. Field Physician, U. S. P. H. S., Feb.-July, 1937; Assistant Physician, Duke Hospital, 1937—
- Physician, U. S. P. H. S., Feb.-July, 1937; Assistant Physician, Duke Hospital, 1937—
 R. CHARMAN CARROLL, A.B., M.D., Assistant in Psychiatry.
 A.B., Duke, 1935; M.D., Colorado, 1937; Int. in Ped., and Resident in Psychiatry, Duke Hospital, 1939—
- BAYARD CARTER, A.B., B.A., M.A., M.D., Professor of Obstetrics and Gynecology.
 - A.B., Delaware, 1920; B.A. and M.A., Oxford, 1923 and 1932; M.D., Johns Hopkins, 1925; member Obs. and Gyn. staff of New Haven Hosp. and Yale Med. Sch., 1925-1929; Assoc. Prof. Obs. and Gyn., and Head of Dept., Univ. of Va. Med. Dept., 1929-1931; Obstetrician and Gynecologist, Duke Hospital, 1931—
- RICHARD RUTLEDGE CARTER, B.A., M.D., Instructor in Neurology.
 B.A., Oregon, 1935; M.D., Duke, 1938; Int. and Ass't. Res. in Med., and Resident in Neurology, Duke Hospital, 1938—

DAVID CAYER, B.A., M.D., Assistant in Medicine.
B.A. and M.D., Duke, 1935 and 1938; Int., N. C. Sanatorium for the Treatment of Tuberculosis, Sanatorium, N. C., 1/1-2/28/39; Int. and Assistant Resident in Medicine, Duke Hospital, 1939—

JAMES ANDREAS CHRISTENSON, A.B., Ph.D., Psychologist. A.B., Harvard, 1935; Ph.D., Duke, 1939; Post-doctoral research in Psychology, Duke Univ., 1939-1940; Research Psychologist, Eloise Hosp., Eloise, Mich., June, 1940-Sept., 1940; 1940—

NORMAN FRANCIS CONANT, B.S., A.M., Ph.D., Assistant Professor of Bacteriology and Mycology.

B.S., Bates, 1930; A.M. and Ph.D., Harvard, 1931 and 1933; Research Fellow, Laboratoire de Parasitologie. Fac. de Médecine, Paris, 1933-1934; Research Ass't., Harvard Med. Sch. and Mass. Gen'l. Hosp., Jan. 1 to Oct. 1, 1935; Assoc. in Bact. and Mycology, Duke Med. Sch., 1935-1939; 1935—

THOMAS BUCKINGHAM COOLIDGE, B.A., Ph.D., M.D., Associate in Biochemistry.
B.A. and M.D., Harvard, 1923 and 1927; Ph.D., Columbia, 1937; Int. in Med., Massachusetts General Hosp., 1927-1929; Tutor and Research Ass't. in Chem., Harvard College, 1929-1932; Ass't. in Biochem., College of Physicians & Surgeons, 1934-1935; Instr. in Biochem., Duke Med. Sch., 1935-1937; 1935—

GERALD RICE COOPER, A.B., M.A., Ph.D., Research Assistant in Biochemistry.
A.B., M.A. and Ph.D., Duke, 1936, 1938 and 1939; 1939—

JANE STANLEY CRAIG, A.B., Research Assistant in Anatomy.
A.B., Goucher, 1935; Ass't. in Dept. of Embryol., Carnegie Institution of Washington,
Balto., Md., 1935-1938; 1938—

ROBERT LAWRENCE CRAIG, B.A., M.D., Instructor in Neurology.
B.A., Amherst, 1931; M.D., Johns Hopkins, 1935; Int. and Ass't. Res. in Med., 19351937, and Ass't. Res. in Neurol., Balto. City Hosps., 1937-1938; Ass't. in Neurol.,
Johns Hopkins Med. Sch., 1937-1938; Res. in Neuropsychiatry, 1938-1939; Assistant
Neurologist, Duke Hospital, 1939—

ERLE BULLA CRAVEN, JR., A.B., M.D., Instructor in Medicine, A.B., Duke, 1925; M.D., Johns Hopkins, 1929; Ass't. in Path., Johns Hopkins Med. Sch., 1929-1930; Res. in Path., Int., Ass't. Res. and Res. in Med., Duke Hospital, 1930-1934; 1937—

ROBERT NOWELL CREADICK, B.A., M.D., Assistant in Obstetrics and Gynecology.

B.A., Wesleyan, 1933; M.D., Yale, 1937; Int., Hartford Hospital, Hartford, Conn., 1937-1939; Int. and Assistant Resident in Obstetries and Gynecology, Duke Hospital,

RAYMOND S. CRISPELL, A.B., M.D., Associate Professor of Neuro-psychiatry.
 A.B. and M.D., Cornell, 1917, 1920; Staff, Bloomingdale Hosp. and Instr. in Neuro-anatomy, Cornell, 1920-1923; House Physician and Resident Neurologist, Bellevue Hosp., N. Y., 1921-1923; Fellow in Neurology, Univ. of Utrecht, Holland, 1925; Medical Director, Sahler Sanitarium, 1926-1933; Neuropsychiatrist, Duke Hospital, 1933—

W. KENNETH CUYLER, B.A., M.A., Research Fellow in Endocrinology.
B.A., Texas, 1923; M.A., Western Reserve, 1929; Director of Clin. Lab., Dept. of Endocrinol. and Metabolism, Cleveland Clinics, 1929-1938; 1938—

WILLIAM JOHN DANN, B.Sc., Ph.D., Associate Professor of Physiology and Nutrition.

B.Sc., Sheffield, 1925; Ph.D., Cambridge, 1930; Med. Research Scholar, Worshipful Co. of Grocers, 1931-1933; Beit Mem. Research Fellow, 1933-1937; 1934—

WILBURT CORNELL DAVISON, A.B., B.A., B.Sc., M.A., D.Sc., M.D., Dean of the School of Medicine and Professor of Pediatrics.

A.B., Princeton, 1913; B.A., B.Sc., and M.A., Oxford, 1915, 1916 and 1919; M.D., Johns Hopkins, 1917; D.Sc., Wake Forest, 1932; Int., Radeliffe Infirmary, 1915-1916; Ass't. Res., Assoc. Ped., Acting Pediatrician in Charge, Johns Hopkins Hosp., 1919-1927; Instr., Assoc., Prof., Acting Head of Dept. of Ped., and Ass't. Dean, Johns Hopkins Med. Sch., 1919-1927; Pediatrist, Duke Hospital, 1927—

- JOHN ESSARY DEES, B.S., M.D., Associate in Urology.

 B.S. and M.D., Virginia. 1930 and 1933: Int. and Ass't. Res., Johns Hopkins Hosp., 1933-1937, and Res. in Urol., Ancker Hosp., 1937-1938, and Johns Hopkins Hosp., 1938-1939; Assistant Urologist, Duke Hospital, 1939—
- SUSAN COONS DEES, A.B., M.S., M.D., Instructor in Pediatrics.
 A.B., Goucher, 1930; M.D., Johns Hopkins, 1934; M.S., Minnesota, 1938; Int., Johns Hopkins Hosp., 1934-1935, and Ass't. Res. in Med., Strong Mem. Hosp, 1935-1936; Int. in Path., Baltimore City Hosps., and Ass't., Johns Hopkins Protein Clinic, 1936-1937; Research Fellow in Ped., Univ. of Minnesota Hosp., 1937-1938; Ass't., Disp. Physician, Johns Hopkins Hosp., 1938-1939; Assistant Pediatrist, Duke Hospital, 1939—
- MACDONALD DICK, B.A., M.A., M.D., Associate in Medicine, Physiology, and Pharmacology.

 B.A. and M.A., Virginia, 1922 and 1923; M.D., Johns Hopkins, 1928; Int. and Ass't. Res., Vanderbilt Univ. Hosp., 1928-1930; Ass't. in Path. and Bact., Rockefeller Institute, 1930-1932; Assistant Physician, Duke Hospital, 1932—
- KENNETH LINDSAY DUKE, A.B., Ph.D., Instructor in Anatomy.
 A.B., Brigham Young, 1936; Ph.D., Duke, 1940; Grad. Ass't. in Zool., Brigham Young Univ., 1936-1937; Grad. Ass't. in Zool., 1937-1939, and Fellow in Zoology, Duke Univ., 1939-1940; 1940—
- GEORGE SHARP EADIE, M.A., M.B., Ph.D., Professor of Physiology and Pharmacology.

 M.A. and M.B., Toronto, 1923 and 1921; Ph.D., Cambridge, 1927; Demonstrator in Biochem., Toronto, 1923-1925; Ass't. in Physiol., Dalhousie, 1927-1928; Assoc. in Physiol., Johns Hopkins Med. Sch., 1928-1930; 1930—
- WATT WEEMS EAGLE, A.B., M.D., Associate Professor of Surgery in Charge of Otolaryngology.

 A.B., Univ. of North Carolina, 1918; Grad. stud., ibid., 1918-1919; M.D., Johns Hopkins, 1925; Int., Church Home and Infirmary, Baltimore, 1925-1926; Int., Ass't. Res. and Res. in Laryngol., John Hopkins Hosp., 1926-1929; Ass't. and Instr. in Laryngol., Johns Hopkins Med. Sch., 1927-1930; Otolaryngologist, Duke Hospital, 1930—
- ELEANOR BEAMER EASLEY, B.A., M.A., M.D., Instructor in Obstetrics and Gynecology,
 B.A., Idaho, 1928; M.A., Iowa, 1929; M.D., Duke, 1934; Int. and Ass't. Res. in Med., and Int., Ass't. Res. and Resident in Obstetrics and Gynecology, Duke Hospital, 1934—
- JESSE HARRISON EPPERSON, B.S., Instructor in Preventive Medicine and Public Health.
 B.S., Oklahoma, 1914; Health Officer, Durham City and County, 1922; 1930—
- CYRUS CONRAD ERICKSON, B.S., B.M., M.D., Instructor in Pathology. B.S., B.M. and M.D., Minnesota, 1932 and 1933; Int. in Surg., Minneapolis Gen'l. Hosp., May-Dec., 1932; Int., rotat., Detroit Receiving Hosp., Jan.-Aug., 1933; Fellow in Med., Minneapolis Gen'l. Hosp., Sept., 1933-Jan., 1934; Clin. Res., Fellow in Ped., Minnesota, Jan., 1934-July, 1935; Ass't. Res., Strong Mem. Hosp., and Ass't. in Path., Rochester Med. Sch., 1935-1937; Assistant Pathologist, Duke Hospital, 1937—
- JOHN OTTO ERICKSON, B.S., Research Assistant in Biochemistry. B.S., Minnesota, 1939; 1939—
- JOHN WENDELL EVERETT, A.B., Ph.D., Assistant Professor of Anatony,
 A.B., Olivet, 1928; Ph.D., Yale, 1932; Instr. in Biol., Goucher, 1930-1931; Instr. and Assoc. in Anat., Duke Univ. Sch. of Med., 1932-1939; 1932—
- WILLIAM DEMPSEY FARMER, A.B., M.D., Instructor in Otolaryngology and Ophthalmology.

 A.B. and M.D., Duke, 1930 and 1934; Int. in Med. Baltimore City Hospitals, 1931-1935; Int. in Surg. and Int., Ass't. Res., and Res. in Otolaryngology and Ophthalmology, 1935-1939; Assistant Otolaryngologist and Ophthalmologist, Duke Hospital, 1939—
- GEORGE BURTON FERGUSON, M.Sc. (Med.), M.D., Instructor in Bronchoscopy.
 M.D., Jefferson, 1932; M.Sc. (Med.), Pennsylvania, 1936; Resident Physician, Jefferson Med. Coll. Hosp., 1932-1934; Bronchoscopist, Duke Hospital, 1937—

- HAROLD FINKELSTEIN, B.S., M.D., Assistant Professor of Surgery.
 B.S., Yale, 1924; M.D., Johns Hopkins, 1928; Int. and Ass't. Res. in Surg., Johns Hopkins Hosp., 1928-1929 and 1930-1931; Fellow in Surg., Johns Hopkins Med. Sch., 1929-1930; Ass't., Instr. and Assoc. in Anat. and Surg., Duke Med. Sch., 1931-1937; Ass't. Res. and Res. in Surg., and Assistant Surgeon, Duke Hospital, 1931—
 - WILEY DAVIS FORBUS, A.B., M.D., Professor of Pathology.
 A.B., Washington and Lee, 1916; M.D., Johns Hopkins, 1923; Res. and Assoc. Pathologist, Johns Hopkins Hosp., 1926-1927 and 1929-1930; Guest Ass't., Pathol. Inst., Ludwig Maximilian's Univ., Munich, 1928; Pathol., Baltimore City Hospitals; Consulting Pathologist, Frederick City Hosp., 1925-1930; Ass't., Instr. and Assoc. in Path., Johns Hopkins Med. Sch., 1923-1930; Pathologist, Duke Hospital, 1930—
- HERBERT JUNIUS FOX, M.D., Instructor in Medicine.
 M.D., Duke, 1935; Int. and Ass't. Res. in Med., University Hospitals of Cleveland, 1935-1938; Fellow, Thorndike Institute of the Boston City Hospial, and Assoc. Instr. in Med., Harvard Medical School, 1938-1940; 1940—
- ROBERT CARSON FUGATE, M.D., Instructor in Otolaryngology and Ophthalmology.
 M.D., Duke, 1937; Int. in Ped., Duke Hosp., April, 1937; Int., Manhattan Eye, Ear & Throat Hosp., June, 1937; rotat., Harper Hosp., Detroit, 1937-1938; Int., Ass't. Res. and Resident in Otolaryngology and Ophthalmology, Duke Hospital, 1938—
- CLARENCE ELLSWORTH GARDNER, JR., A.B., M.D., Associate Professor of Surgery.

 A.B., Wittenberg, 1924; M.D., Johns Hopkins, 1928; Int. and Ass't. Res., Johns Hopkins Hosp., 1928-1930; Ass't. in Surg., Johns Hopkins Med. Sch., 1929-1930; Instr. and Ass't. Professor, Duke Med. Sch., 1930-1935; Resident in Surgery and Associate Surgeon, Duke Hospital, 1930—
- GEORGE GAYLAND GILBERT, B.S., M.D., Assistant in Student Health. B.S., Kenyon, 1934; M.D., Johns Hopkins, 1938; Int. in Urol., Johns Hopkins Hospital, 1938-1939; Int. in Path., and Assistant Resident in Student Health, Duke Hospital, 1939—
- ATTICUS JAMES GILL, M.D., Assistant in Pathology.

 M.D., Duke, 1938; Int., Duke Hospital, 1938-1939, and Res. in Path., St. Paul's Hospital, Dallas, Texas, 1939-1940; Assistant Resident in Pathology, Duke Hospital, 1940—
- ELIZA DOROTHY GOODMAN, R.N., Anes., Assistant in Anesthesia. Diploma, Mary Washington Hosp. Sch. of Nursing, Fredericksburg, Va., 1927; Certificate in Anesthesia, Duke Hosp., 1933; Anesthetist, Southside Community Hosp., Farmville, Va., 1933-1934; Anesthetist, Duke Hospital, 1934—
- HAROLD BENEDICT GOTAAS, B.S., M.S., S.M., Instructor in Public Health.
 B.S. in C.E., Univ. of North Dakota, 1928; M.S. in C.E., Iowa, 1930; S.M., Harvard, 1937; Assistant Professor Sanitary Science, Univ. of North Carolina; 1938—
- WILLIAM ALEXANDER GRAHAM, A.B., M.D., Instructor in Obstetrics and Gynecology.

 A.B., Univ. of North Carolina, 1928; M.D., Pennsylvania, 1932; Int., rotat., Union Memorial Hosp., 1932-1933; Int., Obs. and Gyn., Royal Victoria Hosp., 1933-1934; Int., Women's Hosp., N. Y., 1934-1937; Assistant Obstetrician and Gynecologist, Duke Hospital, 1939—
- ROBERT WILLIAMS GRAVES, B.S., M.A., M.D., Associate in Neurology. B.S., Davidson, 1926; M.A., Princeton, 1928; M.D., Duke, 1933; Voluntary Ass't., Montreal Neurological Institute, June-Dec., 1933; Int. and Ass't., Res. in Med., New Haven Hosp., 1934-Jan., 1936; Voluntary Ass't., Nat'l. Hosp., Queen Square, London, and Instituto del Cancer, Madrid, Jan.-July, 1936; Instr. in Anat., Duke Med. Sch., 1936-1937; Assistant Physician, Duke Hospital, 1936—
- MAURICE H. GREENHILL, A.B., M.D., Associate in Neuropsychiatry.

 A.B., Rochester, 1931; M.D., Chicago, 1936; Int., Los Angeles Co. Gen'l. Hospital, 1936-1937; Psychiatrist, Worcester State Hosp., 1937-1939; Res. Psychiatrist, Mass. Gen'l. Hosp., 1939-1940; Fellow of the Rockefeller Foundation in Neurol., 1940-1941; Res. Assoc., Neurological Unit, Boston City Hosp., 1940-1941; Assistant Neuropsychiatrist, Duke Hospital, 1940-
- CHARLES EDGAR HAINES, JR., M.D., Assistant in Urology, M.D., Duke. 1937; Int. in Med., Baltimore City Hospitals, 1937-1938; Int. in Surg., and Int. and Assistant Resident in Urology, Duke Hospital, 1938—

COLLINS FREMONT HALL, B.S., M.D., Assistant in Otolaryngology and

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B.S., Gettysburg, 1934; M.D., Duke, 1938; Int., rotat., Harrisburg General Hospital, 1939: Int. and Assistant Resident in Otolaryngology and Ophthalmology, Duke Hospital, 1939—

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 A.B., William and Mary, 1923; M.D., Harvard, 1930; Ass't. Res. in Med., and Fellow,
 Private Diagnostic Clinic, Duke Hospital, 1932-1935; 1937—
- EDWIN CROWELL HAMBLEN, B.S., M.D., Associate Professor of Obstetrics and Gynecology.

 B.S. and M.D., Virginia, 1921 and 1928; Ass't. Instr. in Pharmacol., and Materia Medica, Baylor Med. Col., 1922-1926; Int. and Res. Obs. and Gyn., Univ. Va. Hosp., 1928-1930; Clinical Instr. in Obs. and Gyn., Univ. Med. Dept., 1930-1931; Associate Obstetrician and Gynecologist, and Endocrinologist, Duke Hospital, 1931—
- ALMA SMITH HAMM, R.N., Anes., Assistant in Anesthesia.
 Diploma, Maria Parham Hosp. Sch. of Nursing, Henderson, N. C., 1930; Certificate in Anesthesia, Duke Hosp., 1937; Anesthetist, Duke Hospital, 1937—
- PHILIP HANDLER, B.S., M.S., Ph.D., Assistant in Physiology and Nutri-B.S., Coll. of City of New York, 1936; M.S. and Ph.D., Illinois, 1937 and 1939; 1939-
- FREDERIC MOIR HANES, A.B., A.M., M.D., Florence McAlister Professor of Meaticine.

 A.B., Univ. of North Carolina, 1903; A.M., Harvard, 1904; M.D., Johns Hopkins, 1908; Int., Johns Hopkins Hosp., 1908-1909; Assoc. Prof. of Path., Columbia Univ., and Pathologist, Presbyterian Hosp., N. Y., 1909-1912; Assoc., Rockefeller Institute, 1912-1913; Assoc. Prof. of Medicine, Washington Univ. Med. Dept., 1913-1914; Ass't. in Neurology, Queen Square Hospital, London, 1914; Prof. of Therapeutics, Med. Coll. of Va., 1914-1916; Lt. Col. Commanding Base Hosp. 65, A. E. F., 1917-1918; Physician, Duke Hospital, 1930—
- OSCAR CARL EDVARD HANSEN-PRÜSS, A.B., M.D., Associate Professor of Medicine. A.B., Universidad Mayor de San Marcos, 1919; Voluntary Ass't. in Path., Friedrich Wilhelm Universität, Berlin, 1920-1921; M.D., Johns Hopkins, 1924; Int., Ass't. Res. in Med., and Ass't. Physician, Johns Hopkins Hosp., 1924-1930; Ass't., Instr. and Assoc. in Medicine, Johns Hopkins Med. Sch., 1925-1930; Assistant and Associate Physician, Duke Hospital, 1930—
- PHILIP BARBOUR HARDYMON, B.S., M.D., Assistant on Private Medical Service. B.S., Kentucky, 1935; M.D., Vanderbilt, 1939; Int., rotat., Roper Hospital, Charleston, S. C., 1939-1940; Assistant Resident on Private Medical Service, Duke Hospital, 1940—
- GEORGE THOMAS HARRELL, JR., B.A., M.D., Instructor in Medicine. B.A. and M.D., Duke, 1932 and 1936; Int. in Med. and in Pathology, Duke Hospital, 1936-1937; Pathologist, City Memorial Hospital, Winston-Salem, N. C., Dec., 1937-July, 1938; Ass't. Res. and Resident in Medicine, Duke Hospital, 1938—
- JEROME SYLVAN HARRIS, A.B., M.D., Associate in Pediatrics and Biochemistry. A.B., Dartmouth, 1929; M.D., Harvard, 1933; Med. House Officer, House of Good Samaritan, Boston, Oct., 1933-Jan., 1934; Int. in Med., Univ. of Chicago Clinics, 1934-1935; Int., Infants and Children's Hosp., Boston, 1935-1936; Ass't. Res. and Assistant Pediatrist, Duke Hospital, 1936—
- DERYL HART, A.B., A.M., M.D., Professor of Surgery.

 A.B. and A.M., Emory, 1916 and 1917; M.D., Johns Hopkins, 1921; Int. in Surg., Ass't. Res. in Surg. Path., Ass't. Res., Res., and Assoc. Surgeon, Johns Hopkins Hosp., 1921-1930; Ass't. in Path., Instr., and Assoc. in Surg., Johns Hopkins Med. Sch., 1922-1929; Surgeon, Duke Hospital, 1930—
- JAMES EUGENE HEMPHILL, B.A., M.D., Assistant in Radiology.
 B.A., Hampden-Sydney, 1933; M.D., Virginia, 1937; Int., U. S. Pub. Health Serv., Marine Hospital, Baltimore, 1937-1938; Ass't Surg., Marine Hospital, Portland, Me., 1938-1939, Marine Hospital, Fort Worth, Texas, and Marine Hospital, Boston, 1939-1940; Assistant in Radiology, Duke Hospital, 1940—

- JAMES PAISLEY HENDRIX, B.S., M.A., M.D., Associate in Medicine. B.S., Davidson College, 1925; M.A., Davidson, 1926; M.D., Univ. of Penn., 1930; Int., Hosp. of Univ. of Penn., 1930-1932; Research Fellow in Pharmacology, Univ. of Penn., 1932-1935; Instr. in Pharmacology, 1935-1938; Part-time staff Physician, Medical and Gastro-Intestinal Clinics, University Hospital, 1935-1938; Assistant Physician, Duke Hospital, 1938—
- DUNCAN CHARTERIS HETHERINGTON, A.B., M.A., Ph.D., M.D., Associate Professor of Anatomy.

 A.B., Colorado College, 1919; M.A. and Ph.D., Illinois, 1920 and 1922; M.D., Johns Hopkins, 1926; Instr. in Anat., Vanderbilt Med. Sch., 1926-1930; 1930—
- JOSEPH M. HITCH, A.B., M.S., M.D., Instructor in Dermatology and Syphilology.
 A.B., Delaware, 1929; M.D. and M.S., Virginia, 1933 and 1938; Int. in Derm. and Syphil., Univ. of Va. Hosp., April, 1933-July, 1934; Int., rotat., and in Med. and Surg., Univ. of Okla. Hosp., 1934-1935; Ass't. Res. in Derm. and Syphil., Cleveland City Hosp., 1935-1936; Res., Derm. and Syphil., Univ. of Va. Hosp., 1936-1937; Instr. and Service Fellow in Derm. and Syphil., Univ. of Va. Hosp., 1937-1938;
- WILLIAM HENRY HOLLINSHEAD, B.A., M.S., Ph.D., Assistant Professor of Anatomy.
 B.A., M.S., and Ph.D., Vanderbilt, 1926, 1927 and 1932; Instr. in Biol., Vanderbilt, 1927-1930; Instr. and Assoc. in Anat., Duke Med. Sch., 1930-1935; 1930—
- WILLIAM FREDWIN HOLLISTER, M.D., Assistant in Surgery. M.D., Duke, 1938; Int. and Assistant Resident in Surgery, Duke Hospital, 1938—
- HAROLD MACLACHLAN HORACK, M.D., Assistant in Medicine.
 M.D., Duke, 1937; House Officer in Med., Peter Bent Brigham Hospital, Boston, 6/15/37-2/28/39; Res. in Path., Boston City Hospital, 3/1-6/30/39, and Hospital of Univ. of Pennsylvania, and Ass't. Instr. in Path., Univ. of Pensylvania Med. Sch., 1939-1940; Assistant Resident in Medicine, Duke Hospital, 1940—
- JOSEPH DAVID HOUGH, B.A., M.D., Assistant on Private Medical Service.
 B.A., Shepherd, 1931; M.D., Munich, 1937; Int., N. C. Sanatorium for the Treatment of Tuberculosis, Sanatorium, N. C., Nov., 1937-Mar., 1938; Int. and Assit. Res. in Med., and Assistant Resident on Private Medical Service, Duke Hospital, 1938—
- JESSE W. HUFF, B.S., Assistant in Biochemistry. B.S., Pittsburgh, 1940, 1940—
- LAWRENCE CLIFFORD JOHNSON, B.A., Fellow in Sociology. B.A., Iowa, 1939; 1940—
- CHRISTOPHER JOHNSTON, A.B., M.D., Assistant Professor of Medicine. A.B. and M.D., Johns Hopkins, 1922 and 1926; Int. and Ass't. Res. in Med., Johns Hopkins Hosp., 1926-1928; Ass't. in Med., Johns Hopkins Med. Sch., 1927-1928; Ass't. Res. Physician, Hosp. of Rockefeller Institute, N. Y., 1928-1930; Assistant Physician, Duke Hospital, 1930—
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 - A.B., Davidson, 1924; M.D., Johns Hopkins, 1928; Iut. in Med., Strong Mem. Hosp., 1928-1929; Int. in Surg., Johns Hopkins Hosp., 1929-1930; Ass't. and Instr., Duke Med. Sch., 1930-1933; Ass't. Res. and Res. in Surgery, and Assistant Surgeon, Duke Hospital, 1930—
- THOMAS T. JONES, A.B., M.D., Instructor in Medicine. A.B., Davidson, 1928; M.D., Johns Hopkins, 1932; 1937—
- HENRY KAMIN, B.S., Research Assistant in Biochemistry. B.S., Coll. of City of New York, 1940. 1940—
- MALCOLM D. KEMP, M.D., Instructor in Neuropsychiatry.
 M.D., Washington, 1930; Int., rotat., Grasslands Hosp., Valhalla, N. Y., 1930-1931;
 Ass't. Phys., Spring Grove State Hosp., Catonsville, Md., 1931-1935; Assoc. in Psychiatry, Phipps Clinic, Johns Hopkins Hosp., 1935-1936; Medical Director, The Pinebluff Sanitarium, Pinebluff, N. C., 1936; 1937—

- WALTER KEMPNER, M.D., Associate in Medicine.
 M.D., Heidelberg, 1927; Research Assoc. and Ass't. to Prof. O. Warburg, Kaiser Wilhelm Institut f. Zellphysiologie, Berlin-Dahlem, 1927-1928 and 1933-1934; Ass't. to Prof. von Bergmann, Med. Clinic, Univ. of Berlin, 1929-1933; Assistant Physician, Duke Hospital, 1934—
- GRACE P. KERBY, B.S., Research Assistant in Pathology.
 B.S., Florida State Coll. for Women, 1933; Volunteer, Autopsy Bacteriol., Johns Hopkins Medical School, 1933-1934; Bacteriologist, Biological Lab., John Hopkins Hospital, 1934-1937, and Brucellosis Lab., Clayton Foundation for Research, San Antonio, Texas, 1937-1940; 1940—
- JAMES RAYMOND KLEIN, A.B., Ph.D., Instructor in Biochemistry. A.B. and Ph.D., Duke, 1934 and 1939; 1930—
- HENRY IRVING KOHN, A.B., Ph.D., Associate in Physiology and Pharmacology.
 A.B., Dartmouth, 1930; Ph.D., Harvard, 1935; Fellow of the Gen'l. Educ. Bd., Stockholm and Cambridge, 1935-1937; 1937—
- SAMUEL SUMMERFIELD LAMBETH, B.S., M.D., Assistant in Medicine. B.S., Randolph-Macon, 1934; M.D., Virginia, 1939; Int. and Assistant Resident in Medicine, Duke Hospital, 1939—
- ALBERT FRANCIS LEE, B.S., M.D., Assistant in Obstetrics and Gync-cology.
 B.S., Puget Sound, 1935; M.D., Duke, 1937; Int., U. S. Pub. Health Serv., Marine Hospital, Baltimore, 1937-1938; Int. and Assistant Resident in Obstetrics and Gynecology, Duke Hospital, 1938—
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 M.D., Duke, 1938; Int., N. C. Sanatorium for the Treatment of Tuberculosis, Sanatorium, N. C., 1/1-2/28/39; Int. and Assistant Resident in Medicine, Duke Hospital, 1939—
- ARTHUR HILL LONDON, JR., B.S., M.D., Instructor in Pediatrics.
 B.S., North Carolina, 1925; M.D., Pennsylvania, 1927; Int., rotat., Methodist Episcopal Hosp., Phila., 1927-1928; Ass't. Res. in Ped., Children's Hosp., Cincinnati, 1928-1929; Chief Res., Children's Hosp., Phila., and Instr. in Ped., Pennsylvania Med. Sch., 1929-1930; 1932—
- DURWARD LEE LOVELL, M.D., Assistant in Surgery.
 M.D., Duke, 1936; Int. and Assistant Resident in Surgery, Duke Hospital, 1937—
- HANS LÖWENBACH, M.D., Assistant Professor of Neuropsychiatry and Physiology.
 M.D., Hamburg, 1930; Int., Med. Clinic, 1929-1930, and Ass't., Physiolog. Inst., Freiburg i. B., 1930-1932; Ass't., Med. Clinic, Köln, 1932-1933; Ass't., Kaiser Wilhelm Inst. f. Hirnforschung, Physiolog. Abt., Berlin, 1933-1935; Fellow, Nansen Fund, Oslo, Norway, 1935-1936; Ship's Surgeon, Whaling Expeditions, 1936-1939; Res. Ass't. in Psychiatry, Johns Hopkins Med. Sch., 1939-1940; Assistant Neuropsychiatrist, Duke Hospital, 1940—
- RICHARD SHERMAN LYMAN, B.A., M.D., Professor of Neuropsychiatry, B.A., Yale, 1913; M.D., Johns Hopkins, 1921; Int., Henry Phipps Psychiatric Clinic, 1921-1922; Charleton Fellow in Med., 1922-1923, and Assoc. in Psychiatry, Johns Hopkins Med. Sch., 1923-1925; Asso. Prof. of Med., Rochester Med. Sch., 1923-1929; Volun, Ass't., Laboratory of Experiment. Physiol., Leningrad, U. S. S. R., 1929-1930; Assoc. Prof. of Neuropsychiatry, First Nat'l. Med. Sch., Shanghai, China, 1930-1931, and Peiping Union Med. Coll., 1931-1937; Lecturer in Psychiatry, Henry Phipps Psychiatric Clinic, 1938-1940; Neuropsychiatrist, Duke Hospital, 1940—
- ANGUS McBRYDE, B.S., M.D., Assistant Professor of Pediatrics.

 B.S., Davidson, 1924; M.D., Pennsylvania, 1928; Int. and Res. in Ped., Univ. of Pennsylvania Hosp., 1928-1930; Ass't. Res. in Ped., Johns Hopkins Hosp. and Ass't. in Ped., Johns Hopkins Med. Sch., 1930-1931; Assistant Pediatrist, Duke Hospital, 1931—
- PAUL PRESSLY McCAIN, A.B., M.D., Assistant Professor of Medicinc.
 A.B., Erskine, 1907; M.D., Maryland, 1911; Int., Bay View Hosp., Baltimore, 1911-1912; Res., Gaylord Farm Sanat., Wallingford, Conn., 1912-1914; Chief of Med. Service, 1914-1924; and Sup't. North Carolina Tubercul. Sanat., 1924; 1931—

- FORREST DRAPER McCREA, B.S., M.S., Ph.D., Associate Professor of Physiology and Pharmacology.

 B.S., Purdue, 1918; M.S., Illinois, 1923; Ph.D., Wisconsin, 1927; Instr. in Physiol., Univ. Illinois, 1920-1923; Instr. in Physiol., Univ. of Wisconsin Med. Sch., 1923-1927; Ass't. Prof. of Physiol. and Pharmacol., Univ. of Georgia Sch. of Med., 1927-1929; Sr. Instr. in Physiol., Western Reserve Univ. Sch. of Med., 1929-1930; 1930—
- JOHN HENRY MILLER MADDEN, A.B., M.D., Assistant in Medicine. A.B., Clemson, 1935; M.D., Johns Hopkins, 1939; Int. and Assistant Resident in Medicine, Duke Hospital, 1939—
- ISAAC HALL MANNING, JR., A.B., M.D., Instructor in Medicine.
 A.B., North Carolina, 1931; M.D., Harvard, 1935; Int. in Med., Boston City Hosp., 1936-1937; Ass't. Res. in Med., Ass't. in Path., and Res. in Med., Duke Hospital, 1937-1939; 1939—
- DONALD STOVER MARTIN, A.B., M.D., Associate Professor of Bacteriology and Associate in Medicine.
 A.B., Johns Hopkins, 1925; M.D., Rochester, 1930; Int. in Ped., Strong Mem. Hosp., 1930-1931; Ass't. in Physiol. and Ass't. in Bact., Rochester Med. Sch., 1926-1927 and 1931-1932; Associate Bacteriologist, Duke Hospital, 1932—
- ELSIE W. MARTIN, A.B., M.S., Professor of Dietetics.

 A.B., Whitman, 1913; M.S., Teachers Coll., Columbia, 1927; Prof. of Home Economics, Puget Sound, 1915-1917; Dietitian, Univ. of Iowa Hosp., 1919-1920, and Charles T. Miller Hosp., St. Paul, Minn., 1920-1926; Admin. Dietitian, Lakeside Hosp., Cleveland, 1929-1930; Chief Dietitian, Dukc Hospital, 1930—
- JEAN McNUTT MARTIN, B.S., M.D., Assistant Physician of Student Health and Instructor in Pediatrics.

 B.S., William and Mary, 1932; M.D., Virginia, 1936; Int., rotat., Park View Hospital, Rocky Mount, N. C., 1936-1937, and in Ped., Duke Hospital, 1937-1938; Res. Physician, State Teachers Coll., Farmville, Va., 1938-1940; Resident Physician, Woman's College, Duke University, and Assistant Resident in Pediatrics, Duke Hospital, 1940—
- ELIJAH EUGENE MENEFEE, JR., B.S. in Med., M.D., Instructor in Medicine and Bacteriology.

 B.S. in Med. and M.D., Duke, 1936; Int., New York State Sanatorium, Raybrook, 7/1-8/31/36; Int. in Med., Duke Hospital, 1936-1937; Research Fellow in Med. and Bact., Duke Med. Sch., 1937-1938; Res. in Tbc., Bellevue Hospital, New York City, 1/1-12/31/39; 1940—
- DANIEL FRANKLIN MILAM, A.B., M.P.H., M.D., Associate in Preventive Medicine and Public Health.
 A.B., Vanderbilt, 1916; M.D., Chicago, 1924; M.P.H., Johns Hopkins, 1930; Field Staff, The Rockefeller Foundation; Research Prof. of Nutrition, Univ. of North Carolina; 1939—
- JASPER EUGENE MORGAN, B.S., A.M., Ph.D., Instructor in Roentgenology and Physiology.
 B.S., Wake Forest, 1931; A.M. and Ph.D., Duke, 1932 and 1936; Research Ass't. and Research Assoc. in Physics, Duke Univ., 1931-1936; Consulting Physicist, Duke Hospital, 1936—
- HENRY GEORGE MORTON, B.S., M.D., Assistant in Pediatrics.
 B.S. and M.D., Duke, 1936 and 1937; Int. and Ass't. Res. in Ped., Duke Hospital, 1/18/3/1/38; Int. in Med., New York Postgraduate Hospital, 1938-1940; Assistant Resident in Pediatrics, Duke Hospital, 1940—
- MARY HOEN MULLER, R.N., Anes., Instructor in Anesthesia.

 Diploma, Johns Hopkins Hosp. Sch. of Nursing, 1925; Certificate in Anesthesia, Johns Hopkins Hosp., 1926; Anesthetist, ibid., 1926-1930; Anesthetist, Duke Hospital, 1930—
- COLIN ALEXANDER MUNROE, B.S., M.D., Assistant in Medicine.
 B.S., Davidson, 1935; M.D., Duke, 1939; Int. and Assistant Resident in Medicine,
 Duke Hospital, 1939—
- HANS NEURATH, Ph.D., Assistant Professor of Biochemistry.
 Ph.D., Vienna, 1933; Instr. in Colloid Chem., Univ. of Vienna, 1933-1934; Research Fellow, Univ. of London, 1934-1935; Research Fellow in Biochem., Univ. of Minn., 1935-1936; Instr. in Chem., Cornell Univ., 1936-1938; Research Assoc. in Biochem., Duke Med. Sch., 1938-1939; 1938—

- WILLIAM McNEAL NICHOLSON, A.B., M.D., Associate in Medicine. A.B., Duke, 1927; M.D., Johns Hopkins, 1931; Res. House Officer in Med., Johns Hopkins Hosp., 1931-1932; Ass't. in Path. and in Med., Johns Hopkins Med. Sch., 1932-1935; Assistant Physician, Duke Hospital, 1935—
- GRIZZELLE M. NORFLEET, A.B., B.S., M.A., Supervisor of the Spastic Clinic.
 A.B., Salem, 1920; B.S. and M.A., Columbia, 1923 and 1928; 1938—
- J. W. ROY NORTON, A.B., M.P.H., M.D., Lecturer in Preventive Medicine and Public Health. A.B., Duke, 1920; M.D., Vanderbilt, 1928; M.P.H., Harvard, 1936; Prof. of Public Health Administration, Univ. of North Carolina; 1938—
- EDWARD STEWART ORGAIN, M.D., Associate in Medicine. M.D., Virginia, 1930; Int., Ass't. Res. and Res. in Med., Univ. Hospital of Cleveland, 1930-1933; Res. Fellow in Med., assigned to Cardiology, Mass. General Hosp., 1933-1934; Assistant Physician, Duke Hospital, 1934—
- LASZLO ORMANDY, M.D., Fellow in Spastic Clinic.
 M.D., Ferenc Joseph Tudomany Egystem, 1936; Volun. Ass't., Surg. Dispensary, Johns Hopkins Hosp., April, 1937. Fellow in Surg., Mayo Foundation, Oct., 1937-July, 1939; Res. at Mission Hosp., Asheville, N. C., 1939-1940; 1940—
- CARLTON LEE OULD, A.B., M.D., Assistant in Radiology.
 A.B. and M.D., Duke, 1931 and 1937; Int. in Med., Duke Hospital, 1937-1938, and in Path., Rhode Island Hospital, 1938-1939; Int. and Assistant Resident in Radiology, Duke Hospital, 1939—
- ALBERT ARCHER PARRISH, A.B., M.D., Assistant in Student Health.
 A.B. and M.D., Duke, 1933 and 1938; Int., Rocky Mount Sanatorium, Rocky Mount,
 N. C., 1/1-6/30/39; Int. in Surg., and Assistant Resident in Student Health, Duke
 Hospital, 1939—
- ARTHUR SPERRY PEARSE, B.S., A.M., Ph.D., Professor of Zoology.
 B.S. and A.M., Nebraska, 1900 and 1904; Ph.D., Harvard, 1908; Austin Teaching Fellow, Harvard, 1907-1908; London School of Hygiene and Tropical Medicine, 1926; Instr. in Zoology, Michigan, 1908-1910; Ass't. Prof., 1910-1911; Assoc. Prof., Philippines, 1911; St. Louis, 1911; Wisconsin, 1911-1912; Assoc. Prof., 1912-1919; Prof., 1919-1927; Prof., Keiogijuku Digaku, Tokyo, 1929-1930; 1930—
- RICHARD LEHMER PEARSE, A.B., M.D., Instructor in Obstetrics and Gynecology.

 A.B., Duke, 1927; M.D., Harvard, 1931; Int., Free Hosp. for Women, 1931-1932; Int., Mass. Gen'l., Hosp., 1932-1934; Int., Providence Lying-In Hosp., 1934-1935; Ass't. Res. and Res. in Obstetrics and Gynecology, and Assistant Obstetrician and Gynecologist, Duke Hospital, 1935—
- TALMAGE LEE PEELE, A.B., M.D., Instructor in Anatomy.

 A.B. and M.D., Duke, 1929 and 1934; Ass't. in Anat., Duke Med. Sch., 1931-1934; Int. and Ass't. Res. in Med., Duke Hosp., 1934-1936; Int. and Res. in Neurol., Bellevue Hosp., New York City, 1936-1937; Fellow in Anat., Johns Hopkins Med. Sch., 1937-1938; Instr. in Anat., Univ. of Rochester Med. Sch., 1938-1939; 1939—
- WILLIAM ALEXANDRE PERLZWEIG, B.S., A.M., Ph.D., Professor of Biochemistry.

 B.S., A.M. and Ph.D., Columbia, 1913, 1914 and 1915; Ass't. in Physiol. Chem., Columbia Med. Sch., 1913-1916; Research Chemist, Rockefeller Institute, 1916-1917; Research Biochemist, Hygienic Laboratory, U. S. P. H. S., 1919-1921; Instr. and Assoc. in Med. Johns Hopkins Med. Sch., 1922-1930; Chemist to the Med. Clin., Johns Hopkins Hosp., 1922-1930; Biochemist, Duke Hospital, 1930—
- ELBERT LAPSLEY PERSONS, A.B., M.D., Associate in Medicine and Dermatology.

 A.B., Ohio State, 1923; M.D., Harvard, 1927; House Officer, Huntington Mem. Hosp., Boston, 1925-1926; Int. and Res. in Med., Massachusetts General Hosp., 1927-1930; Teaching Fellow in Med., Harvard Med. Sch., 1929-1930; Instr. in Med., Duke Med. Sch., 1930-1934; Res. in Med. and Assistant Physician, Duke Hospital, 1930—
- WILLIAM HENRY PETTUS, JR., B.S., M.D., Assistant in Surgery.
 B.S., Richmond, 1933; M.D., Cornell, 1937; Int. and Assistant Resident in Surgery,
 Duke Hospital, 1937—

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 A.B., Berea, 1930; M.A., Chicago, 1938; Med. Social Worker, Univ. of Chicago Clinics, Jan.-Aug., 1938; 1938—
- MARGARET ISABEL PINKERTON, B.S., R.N., Dean of the School of Nursing and Professor of Nursing.
 R.N., Univ. of Va. School of Nursing, 1927; B.S. in Nursing Education, Teachers Coll., Columbia Univ., 1936; Ass't. Supt. of Nurses, Stuart Circle Hosp., 1928-1930; Hostess and Ass't. Supt. of Nurses. Univ. of Va. Hosp., 1930-1935; Instr. in Nursing Arts, Washington Univ. School of Nursing, 1936-1938; Supt. of Nurses, Barnes Hosp., 1938-1939; Superintendent of Nurses, Duke Hospital, 1939—
- DAVID EDWIN PLUMMER, M.D., Instructor in Syphilology.
 M.D., Med. Coll. of Virginia, 1934; Ass't. in practice, Denton, N. C., 1934-1935; Ass't. in Research, Fitzsimmons Gen'l. Hosp., Denver, Colo., 1935-1937; Pub. Health Work, Lumberton, N. C., 1937-1938; 1938—
- MARY ALVERTA POSTON, A.M., Instructor in Bacteriology.
 A.M., Duke, 1939; Ass't. in Biol. Lab., Johns Hopkins Hosp., 1922-1930; Assistant Bacteriologist, Duke Hospital, 1930—
- ROSCOE LE ROY PULLEN, B.A., B.M., M.D., Clinical Fellow, Endocrine Division, Obstetrics and Gynecology.
 B.A., Knox, 1935; B.M. and M.D., Northwestern, 1939 and 1940; Int., rotat., Charity Hospital, New Orleans, 1939-1940; 1940—
- RICHARD BEVERLY RANEY, A.B., M.D., Associate in Orthopaedics.
 A.B., North Carolina, 1926; M.D., Harvard, 1930; Int. in Surg., 1930-1931; Surg.
 Pathologist, 1931-1932; Ass't. Res. and Assoc. Res. Surgeon, Strong Mem. Hosp.,
 1932-1934; Res. in Orth. and Assistant Orthopaedist, Duke Hospital, 1934—
- WATSON SMITH RANKIN, M.D., Lecturer in Preventive Medicine and Public Health.

 M.D., Maryland, 1901; Int. and Res. in Path., Univ. of Maryland Hospital, 1901-1903; Dean and Prof. of Path., Wake Forest Coll., 1903-1909; Sec'y., State Board of Health and State Health Officer, North Carolina, 1909-1925; Director of Hosp. and Orphan Section, The Duke Endowment, 1925; 1930—
- I. THOMAS REAMER, Ph.G., Instructor in Pharmacy. Ph.G., Univ. of Maryland, 1924; Ass't. Pharmacist, Johns Hopkins Hosp., 1925-1931; Pharmacist, Duke Hospital, 1931—
- ROBERT JAMES REEVES, A.B., M.D., Associate Professor of Radiology. A.B. and M.D., Baylor, 1920 and 1924; Int., Baylor Hosp., 1924-1925; Res. in Roentgenol., Massachusetts General Hosp., 1925-1926; Ass't. Attending Physician in Roentgen Ray Dept., Presbyterian Hosp. and Med. Center, N. V., 1926-1930; Instr. in Med., Columbia Med. Sch., 1925-1930; Radiologist. Duke Hospital, 1930—
- PAUL GERHARD REQUE, M.D., Instructor in Medicine, Dermatology and Syphilology.

 M.D., Duke, 1933; Int. and Ass't. Res. in Med., Duke Hospital, 1933-1935; Ass't. Res. in Med., Lakeside Hospital, Cleveland, O., 1935-1936; Instr. and Med. Ass't., Yale University, 1936-1938; in practice, Brooklyn, N. Y., and Clin. Ass't. Dermatologist, New York Post Graduate Hospital, 1938-1940; 1940—
- WILLIAM P. RICHARDSON, B.S., M.P.H., M.D., Instructor in Preventive Medicine and Public Health.
 B.S. (Med.), Wake Forest, 1926; M.D., Med. Coll. of Va., 1928; M.P.H., Johns Hopkins, 1933; Associate Professor of Public Health Administration, in charge of District Health Department; 1938—
- LOUIS CARROLL ROBERTS, B.S., M.D., Instructor in Urology.
 B.S., Davidson, 1930; M.D., Duke, 1933; Int. in Surg., Ass't. Res. in Path., Ass't.
 Res. in Surg., and Res. in Urol., Duke Hospital, 1933-1940; 1940—
- MILTON JOSEPH ROSENAU, M.D., Lecturer in Preventive Medicine and Public Health.

 M.D., Pennsylvania, 1889; Student, Hygienische Institut, Berlin, 1892-1893; L'Institut Pasteur, Paris, 1900; Pathologisches Institut, Vienna, 1900; Hon. A.M., Harvard; Professor of Epidemiology and Director of the School of Public Health, Univ. of North Carolina; 1938—
- NORMAN F. ROSS, D.D.S., Instructor in Dentistry. D.D.S., Temple, 1937; Int. in Dentistry, and Assistant Dentist, Duke Hospital, 1937—

- ROBERT ALEXANDER ROSS, B.S., M.D., Associate Professor of Ob
 - stetrics and Gynecology. Stetrics and Gynectology.

 B.S., Univ. of North Carolina, 1920; M.D., Pennsylvania, 1922; Res. Physician, Univ. of Pa. Settlement House, 1921-1922; Int. Episcopal Hosp., Phila., 1922-1924; Int. and Res., Kensington Hosp. for Women, 1923-1925; Obstetrician, Watts Hospital; Obstetrician, Salvation Army Hospital; Consulting Obstetrician and Gynecologist, Lincoln Hospital; Associate Obstetrician and Gynecologist, Duke Hospital, 1930—
- JULIAN MEADE RUFFIN, A.B., M.A., M.D., Associate Professor of Medicine. A.B., M.A. and M.D., Virginia, 1921, 1922 and 1926; Int. and House Officer, Bellevue Hosp., N. Y., 1926-1928; Instr. in Phys. Diag., George Washington Med. Sch., 1928-1930; Assistant and Associate Physician, Duke Hospital, 1930—
- HERBERT PAUL SARETT, B.A., M.S., Assistant in Biochemistry. B.A., Brooklyn, 1936; M.S., Cornell, 1937; 1939—
- PAUL WELSTEAD SCHANHER, JR., B.A. and M.D., Assistant in Surgery.
 B.A. and M.D., Duke, 1935 and 1938; Int. in Med., Baltimore City Hospitals, 1/1-6/30/39; Int. and Assistant Resident in Surgery, Duke Hospital, 1939—
- HERMAN MAX SCHIEBEL, A.B., M.D., Instructor in Surgery.
 A.B. and M.D., Johns Hopkins, 1929 and 1933; Int., Ass't. Res. and Res. in Surg.,
 Duke Hospital, 1933-1939; 1939—
- CLOTILDE SCHLAYER, Ph.D., Research Assistant in Medicine.
 Ph.D., Heidelberg, 1927; Voluntary Research Ass't. in Cellular Physiol., University Hosp. of Berlin, 1933-1935; 1937—
- WILLIAM SCHULZE, B.S., M.D., Instructor in Medicine.
 B.S., Richmond, 1932; M.D., Duke, 1936; Ass't. Res. in Med., Mass. Gen'l. Hosp., July, 1938-Sept., 1938; Int., Ass't. Res. and Res. in Med., 1936-1940; Assistant Physician, Duke Hospital, 1940—
- VIRGIL C. SCOTT, B.S., M.D., Assistant on Private Medical Service.
 B.S., Hobart, 1933; M.D., Rochester, 1937; Int., Johns Hopkins Hospital, 1937-1938, and Ass't. Res. in Med.. Strong Memorial Hospital. Rochester, N. Y., 1938-1939; Phys., United Fruit Co. Hospital, Tela, Honduras, 1939-1940; Assistant Resident on Private Medical Service, Duke Hospital, 1940—
- WILL CAMP SEALY, B.S., M.D., Assistant in Surgery.
 B.S. and M.D., Emory, 1933 and 1936; Int. and Assistant Resident in Surgery, Duke Hospital, 1936—
- D. GORDON SHARP, B.S., M.A., Ph.D., Research Associate in Experimental Surgery.

 B.S., Rutgers, 1932; M.A. and Ph.D., Duke. 1937 and 1939; Research Physicist in x-ray and ultraviolet ray. Westinghouse Elec. & Mfg. Co., Bloomfield, N. J., 1932-1936; Research Fellow in Physics, Duke Univ. and Fellow in Surgery, Duke Univ. School of Med., 1936-1939; 1939—
- DAVID TILLERSON SMITH, A.B., M.D., Professor of Bacteriology, and Associate Professor of Medicine.

 A.B., Furman, 1918; M.D., Johns Hopkins, 1922; Int. in Ped., Johns Hopkins Hosp., 1922-1923; Ass't. in Path. and Bact., Rockefeller Institute, 1923-1924; Bacteriologist, Pathologist and Director, Research Laboratory of N. Y. State Hosp. for Tuberculosis, Ray Brook, N. Y., 1924-1930; Bacteriologist and Associate Physician, Duke Hospital, 1930-
- O. NORRIS SMITH, B.A., M.D., Instructor in Medicine.
 B.A., Washington and Lee. 1929; M.D., Pennsylvania, 1933; Int., rotat., Pennsylvania Hosp., 1933-1935; Res. in Path., Univ. Hosp., and Ass't. Instr. in Path., Pennsylvania Med. Sch., 1935-1937; Ass't. Physician, O. P. C., Pennsylvania Hosp., 1936-1937; Ass't. Res. in Med., Duke Hospital, 1937-1938; 1937—
- PRESTON SMITH, Assistant in Clinical Microscopy.
 Assistant in Clinical Microscopy, Duke Medical School; 1932—
- SUSAN GOWER SMITH, A.B., M.A., Associate in Medicine. A.B., Barnard, 1919: M.A., Columbia, 1924; Chemist, N. Y. State Hosp., 1926-1930; Instr. in Biochem.; Instr. in Phys. and Pharm.; Assoc. in Phys. and Nutrition, and Associate in Med. and Nutrition, 1930-1937; 1930—

- MARY HELEN SNIVELY, R.N., Anes., Instructor in Anesthesia.

 Diploma, Johns Hopkins Hosp. Sch. of Nursing, 1929; Certificate in Anesthesia, Johns Hopkins Hosp., 1930; Anesthetist, Duke Hospital, 1930—
- LAURENCE HASBROUCK SNYDER, B.S., M.S., Sc.D., Visiting Lecturer in Medical Genetics.
 B.S., Rutgers, 1922; M.S., Sc.D., Harvard, 1924; Instr., Ass't. Prof., and Assoc. Prof. of Zool., N. C. State Coll., 1924-1930; Assoc. Prof. and Prof. of Zool., Ohio State U., 1933-; Prof. of Med. Genetics, Ohio State U. Coll. of Med., 1933; 1940—
- JOSEPH ANDERSON SPEED, M.D., Director of Student Health.
 M.D., Jefferson, 1914; Int., rotat., Phila. Polyclinic Hosp., 1914-1915; Int., Babies
 Hosp., Phila., June-Nov., 1915; in practice, Durham, 1915-17; Capt., Med. Corps,
 113th Field Artillery, A. E. F., 1917-1919; in practice and College Phys. for Students,
 Trinity Coll., 1920-1930; 1930—
- DOUGLAS HAMILTON SPRUNT, B.S., M.S., M.D., Associate Professor of Pathology.

 B.S., Virginia, 1922; M.D. and M.S., Yale, 1927 and 1929; Acting Res. and Res. in Path., New Haven Hosp., 1927-1929; Instr. in Path., Yale Med. Sch., 1928-1929; Sterling Research Fellow, 1929-1930; Ass't. in Med., Hosp. of Rockefeller Institute, 1930-1932; Associate Pathologist, Duke Hospital, 1932—
- EDWARD JOHN STAINBROOK, A.B., Psychologist

 A.B., Allegheny, 1935; Psychologist, Warren State Hosp., Warren, Pa., 1935-1936; Research Psychologist, St. Elizabeth's Hosp., Washington, D. C., 1936-1938, and Worcester State Hosp., Worcester, Mass., Summer, 1940; 1940—
- CHARLES CLARENCE STAUFFER, A.B., Assistant in Anatomy. A.B., Duke, 1937; 1940—
- JOSEPH BLACKBURN STEVENS, B.S., M.D., Instructor in Medicine. B.S., Davidson, 1932; M.D., Duke, 1935; Int., Jr. Ass't., Ass't. Res. in Path.; Int. and Ass't. Res. in Med., and Ass't. Res. in Neurol., Duke Hospital, 1936-1940; 1940—
- CHRISTOPHER STUART, JR., M.D., Instructor in Urology.
 M.D., McGill, 1934; Int., rotat., and Res. in Path., Montreal Gen'i. Hosp., 1934-1936;
 Fellow in Private Diagnostic Clinic, Int. and Ass't. Res. in Surgery, and Ass't. Res. and Resident in Urology, Duke Hospital, 1936—
- ROBERT BURKE SUITT, M.D., Associate in Neuropsychiatry.
 M.D., St. Louis, 1932; Jun. Physician, St. Louis City Hosp., 1932-1933; Res. in Psychiatry, Highland Hosp., Asheville, N. C., 1933-1938; Ass't. in Psychiatry, Johns Hopkins Univ., 1938-1940; Ass't. Dispen. Psychiatrist, Johns Hopkins Hosp., 1939-1940; Assistant Neuropsychiatrist, Duke Hospital, 1940—
- DANIEL JOSEPH SULLIVAN, M.D., Instructor in Neuropsychiatry.
 M.D., Temple, 1934; Int., rotat., Gallinger Municipal Hosp., 1934-1935, and Res. in Psychiatry, St. Elizabeth's Hosp., Washington, D. C., 1935-1936; Instr. in Neurol., George Washington Med. Sch., 1935-1936; Visit. Junior Psychiatrist, Washington Mental Hyg. Institute, Washington, D. C., 1935-1936; Senior Physician, in Charge of Male Admission Serv., Boston State Hosp., Feb. 1. 1938-Dec. 15, 1939; Assistant to the Medical Director, Highland Hospital, Asheville, N. C., 1940—
- FRANCIS HUNTINGTON SWETT, A.B., M.A., Ph.D., Professor of Anatomy.

 A.B., Bates, 1916; M.A., Brown, 1917; Ph.D., Yale, 1922; Instr. and Assoc. in Anat., Johns Hopkins Med. Sch., 1922-1925; Assoc. Prof. of Anat. Vanderbilt Med. Sch., 1925-1930; 1930—
- ALTON ROBERT TAYLOR, B.S., Ph.D., Research Associate in Surgery.
 B.S., Wesleyan, 1930; Ph.D., Princeton, 1939; Research Ass't. and Research Assoc. in Biol., Princeton Univ., 1930-1939; 1939—
- HAYWOOD MAURICE TAYLOR, B.S., M.S., Ph.D., Associate Professor of Biochemistry and Toxicology.

 B.S., M.S. and Ph.D., Univ. of North Carolina, 1920, 1921 and 1924; Instr. in Chem. and Pharmaceut. Chem., Univ. of North Carolina, 1920-1925; Research Chemist, E. R. Squibb & Sons, and Fisk Rubber Company, 1925-1928; Instr. in Ophthalmol., and Chemist to Wilmer Institute, Johns Hopkins Hosp., 1928-1930; Visiting Fellow in Forensic Med. New York Univ., 1934; Associate Biochemist and Toxicologist, Duke Hospital, 1930—

- JOSEPH DIMMICK THETFORD, M.D., Assistant in Medicine. M.D., Duke, 1938; Int. and Assistant Resident in Medicine, Duke Hospital, 1939—
- WALTER LEE THOMAS, JR., A.B., M.A., M.D., Assistant Professor of Obstetrics and Gynecology.

 A.B., Lynchburg, 1926; M.A. and M.D., Virginia, 1927 and 1931; Int., Virginia-Mason Hosp., 1931-1932; Ass't. Res. and Res. in Obs. and Gyn., Duke Hosp., 1932-1935; Assistant Obstetrician and Gynecologist, Henry Ford Hosp., 1936-1937; Assistant Obstetrician and Gynecologist, Duke Hospital, 1932—
- EDWIN HALE THORNHILL, M.D., Assistant in Otolaryngology and Ophthalmology.

 M.D., Duke, 1938; Int., rotat., Church Home & Infirmary, Baltimore, 1938-1939; Int. and Assistant Resident in Otolaryngology and Ophthalmology, Duke Hospital, 1939—
- JOSIAH CHARLES TRENT, A.B., M.D., Assistant in Surgery.
 A.B., Duke, 1934; M.D., Pennsylvania, 1938; Int. in Med., Henry Ford Hospital, Detroit, 1938-1939; Int. and Assistant Resident in Surgery, Duke Hospital, 1939—
- SAMUEL EARLE UPCHURCH, B.A., M.D., Instructor in Surgery.
 B.A. and M.D., Vanderbilt, 1929 and 1933; Int. in Surg., Int., and Ass't. Res. in
 Med., and Ass't. Res. and Resident in Surgery, Duke Hospital, 1933—
- CONDIT BREWER VAN ARSDALL, JR., A.B., M.D., Assistant in Medicine.
 A.B., Kentucky Wesleyan, 1936; M.D., Duke, 1937; Int., Gen'l. Hosp., Saranac Lake, N. Y., 1937-1938; Int. and Assistant Resident in Medicine, Duke Hospital, 1938—
- WILLIAM STUART WALLACE, A.B., M.D., Associate in Radiology.
 A.B. and M.D., Washington, 1931 and 1935; Int., rotat., George F. Geisinger Hosp.,
 Danville, Pa., 1935-1936; Res. in X-ray, Hurley Hosp., Flint, Mich., 1936-1938; Assistant Radiologist, Duke Hospital, 1938—
- CHESTER H. WATERS, JR., B.A., M.D., Instructor in Orthopaedics.
 B.A., Amherst, 1932; M.D., Nebraska, 1936; Ass't. in practice, Omaha, July-Nov., 1936; Int. in Med., Presbyterian Hosp., Chicago, 1936-1938; Res. Surgeon, N. C. Orth. Hosp., Gastonia, July, 1938-Jan., 1939; Exchange Service in Orthopaedics, Univ. of Va. Hosp., Charlottesville, Jan.-July, 1939; Ass't. Res. and Resident in Orthopaedics, Duke Hospital, 1938—
- KENNETH DURHAM WEEKS, B.S., M.D., Assistant in Medicine.
 B.S., Davidson, 1935; M.D., Duke, 1939; Int. and Assistant Resident in Medicine,
 Duke Hospital, 1939—
- WARNER LEE WELLS, M.D., Assistant in Surgery.
 M.D., Duke, 1938; Int. and Assistant Resident in Surgery, Duke Hospital, 1938—
- JAMES GRIFFITH WHILDIN, B.S., M.D., Research Fellow, National Cancer Institute, in Radiology. B.S. and M.D., Duke, 1937; Int., rotat., Reading City Hospital, 1937-1938; Int. in Surg., Duke Hospital, 1938-1939; 1939—
- PAUL LELAND WILLIAMS, M.D., Assistant in Dermatology and Syphilology.
 M.D., Oregon, 1937; Int., U. S. Marine Hospital, Balto., 1937-1938; Int. and Ass't. Res. in Med. Private Diagnostic Clinic, and Assistant Resident in Dermatology and Syphilology, Duke Hospital, 1938—
- DAVID A. WILSON, B.A., M.A., M.D., Assistant in Surgery.
 B.A., Wooster, 1932; M.A., Wesleyan, 1933; M.D., Ohio, 1938; Int. in Tbc. and
 Thoracic Surg., Franklin Co. Sanatorium, 1938-1939; Int. and Assistant Resident in
 Surgery, Duke Hospital, 1939—
- JAMES ALLEN WILSON, B.A., M.D., Assistant in Endocrinology. B.A. and M.D., Texas, 1935 and 1939; Int., rotat., Charity Hospital, New Orleans, 1939-1940; Assistant Resident in Endocrinology, Duke Hospital, 1940—
- NANCY BOWMAN WISE, A.B., M.D., James A. Greene Research Fellow in Medicine.

 A.B. Mt. Holyoke, 1932; M.D. Volo, 1937; Ind. and A. V. D. J. No. 1, 100
 - A.B., Mt. Holyoke, 1932; M.D., Yale, 1937; Int. and Ass't. Res. in Med., and Research Fellow in Medicine and Bacteriology, Duke Hospital, 1937—

- BARNES WOODHALL, A.B., M.D., Assistant Professor of Surgery in Charge of Neuro-surgery.

 A.B., Williams, 1926; M.D., Johns Hopkins, 1930; Int., Ass't. Res. and Res. in Surg., Johns Hopkins Hosp., 1930-1937; Ass't. and Instr. in Surg., Johns Hopkins Med. Sch., 1931-1937; Assistant Surgeon, Duke Hospital, 1937—
- DOROTHY BRYAN WYVELL, A.B., M.D., Assistant in Pediatrics.
 A.B. and M.D., Duke, 1934 and 1938; Int., Children's Hospital, Montreal, 1938-1939, and Private Med. Serv., Johns Hopkins Hospital, 1939-1940; Assistant Resident in Pediatrics, Duke Hospital, 1940—
- KARL ARDEN YOUNGSTROM, A.B., M.A., Ph.D., Instructor in Anatomy.
 A.B., M.A. and Ph.D., Kansas, 1930, 1932 and 1937; Instr. in Bact., 1930-1931, and in Anat., Kansas Univ., 1931-1937; 1937—

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BAYARD CARTER, A.B., B.A., M.A., M.D., Obstetrics and Gynecology. WILBURT CORNELL DAVISON, A.B., B.A., B.Sc., M.A., D.Sc., M.D., Pediatrics.

WATT WEEMS EAGLE, A.B., M.D., Otolaryngology, GEORGE BURTON FERGUSON, M.S., M.D., Bronchoscopy.

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OSCAR CARL EDVARD HANSEN-PRÜSS, A.B., M.D., Hematology and Allergy.

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WILLIAM McNeal Nicholson, A.B., M.D., Diseases of Metabolism. WILLIAM ALEXANDER PERLZWEIG, B.S., A.M., Ph.D., Biochemistry.

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JULIAN MEADE RUFFIN, A.B., M.A., M.D., Gastro-enterology.

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BARNES WOODHALL, A.B., M.D., Neuro-surgery.

Associate Staff

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HERBERT JUNIUS Fox, A.B., M.D., Medicine. SNOWDEN COWMAN HALL, A.B., M.D., Medicine. JAMES PAISLEY HENDRIX, B.S., M.A., M.D., Medicine. Christopher Johnston, A.B., M.D., Cardiology.

ISAAC H. MANNING, JR., A.B., M.D., Medicine. THOMAS T. JONES, A.B., M.D., Medicine.

Walter, Kempner, M.D., Medicine.

DONALD STOVER MARTIN, A.B., M.D., Medicine and Bacteriology.

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O. NORRIS SMITH, B.A., M.D., Medicine.

Joseph Blackburn Stevens, B.S., M.D., Medicine.

Joseph M. Hitch, A.B., M.S., M.D., Dermatology and Syphilology.

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JOHN ESSARY DEES, B.S., M.D., Urology.

Louis Carroll Roberts, A.B., M.D., Urology.

WILLIAM D. FARMER, A.B., M.D., Otolaryngology. EDWIN CROWELL HAMBLEN, B.S., M.D., Obstetrics and Gynecology, and

Endocrinology.

ROBERT ALEXANDER ROSS, B.S., M.D., Obstetrics and Gynecology.

Annie Thompson Smith, A.B., A.M., M.D., Obstetrics and Gynecology. WALTER LEE THOMAS, JR., A.B., M.A., M.D., Obstetrics and Gynecology.

WILLIAM ALEXANDER GRAHAM, A.B., M.D., Obstetrics and Gynecology. RICHARD LEHMER PEARSE, A.B., M.D., Obstetrics and Gynecology.

JAY MORRIS ARENA, B.S., M.D., Pediatrics.

ANGUS McBRYDE, B.S., M.D., Pediatrics.

JEROME SYLVAN HARRIS, A.B., M.D., Pediatrics. ARTHUR HILL LONDON, JR., A.B., M.D., Pediatrics.

Susan Coons Dees, A.B., M.S., M.D., Pediatrics.

DANIEL FRANKLIN MILAM, A.B., M.P.H., M.D., Preventive Medicine and Public Health.

WILLIAM STUART WALLACE, A.B., M.D., Radiology.

ROGER DENIO BAKER, A.B., M.D., Pathology.

CYRUS CONRAD ERICKSON, B.S., B.M., M.D., Pathology.

Douglas Hamilton Sprunt, B.S., M.S., M.D., Pathology. HAYWOOD MAURICE TAYLOR, B.S., M.S., Ph.D., Toxicology.

THOMAS BUCKINGHAM COOLIDGE, B.A., Ph.D., M.D., Biochemistry.

NORMAN F. Ross, D.D.S., Dentistry.

RAYMOND S. CRISPELL, A.B., M.D., Neuropsychiatry. MAURICE H. GREENHILL, A.B., M.D., Neuropsychiatry.

MALCOLM D. KEMP, M.D., Neuropsychiatry. HANS LÖWENBACH, M.D., Neuropsychiatry.

ROBERT BURKE SUITT, M.D., Neuropsychiatry.

DANIEL JOSEPH SULLIVAN, M.D., Neuropsychiatry.

Resident Staff Residents

GEORGE THOMAS HARRELL, Jr., B.A. and M.D., Duke, 1932 and 1936; Medicine. R. CHARMAN CARROLL, A.B., Duke, 1935; M.D., Colorado, 1939; Neuropsychiatry.

RICHARD RUTLEDGE CARTER, A.B., Oregon, 1935; M.D., Duke, 1938; Neurology. SAMUEL EARLE UPCHURCH, B.A. and M.D., Vanderbilt, 1929 and 1933; Surgery. CHRISTOPHER STUART, JR., M.D., McGill, 1934; Urology. CHESTER H. WATERS, JR., B.A., Amherst, 1932; M.D., Nebraska, 1936; Ortho-

paedics.

RALPH A. ARNOLD, B.A., Rochester, 1932; M.D., Buffalo, 1936; Otolaryngology

and Ophthalmology. ROBERT CARSON FUGATE, M.D., Duke, 1937; Otolaryngology and Ophthalmology. ELEANOR BEAMER EASLEY, B.A., Idaho, 1928; M.A., Iowa, 1929; M.D., Duke,

1934; Obstetrics and Gynecology.

GEORGE JAY BAYLIN, A.B., Johns Hopkins, 1932; M.D., Duke, 1937; Radiology.

Assistant Residents

DAVID CAYER, B.A. and M.D., Duke, 1935 and 1938; Medicine. HAROLD MACLACHLAN HORACK, B.S. in Med. and M.D., Duke, 1937; Medicine. SAMUEL SUMMERFIELD LAMBETH, B.S., Randolph-Macon, 1934; M.D., Virginia, 1939; Medicine. Robert Carl Lincicome, M.D., Duke, 1938; Medicine.

JOHN HENRY MILLER MADDEN, A.B., Clemson, 1935; M.D., Johns Hopkins,

1939; Medicine.
Colin Alexander Munroe, B.S., Davidson, 1935; M.D., Duke, 1939; Medicine.
Joseph Dimmick Thetrord, M.D., Duke, 1938; Medicine.
Condit Brewer Van Arsdall, Jr., A.B., Kentucky Wesleyan, 1936; M.D.,

Duke, 1937; Medicine.

Kenneth Durham Weeks, B.S., Davidson, 1935; M. D., Duke, 1939; Medicine. PHILIP BARBOUR HARDYMON, B.S., Kentucky, 1935; M.D., Vanderbilt, 1939; Private Medical Service.

Joseph David Hough, B.A., Shepherd, 1931; M.D., Munich, 1937; Private

Medical Service. VERGIL C. Scott, B.S., Hobart, 1933; M.D., Rochester, 1937; Private Medical

Service. Paul Leland Williams, B.S., Washington, 1933; M.D., Oregon, 1937; Der-

matology and Syphilology.

WILL CAMP SEALY, B.S. and M.D., Emory, 1933 and 1936; Surgery. WILLIAM FREDWIN HOLLISTER, M.D., Duke, 1938; Surgery.

DURWARD LEE LOVELL, M.D., Duke, 1936; Surgery.
WILLIAM HENRY PETTUS, JR., B.S., Richmond, 1933; M.D., Cornell, 1937; Surgery.

PAUL WELSTEAD SCHANHER, JR., B.A. and M.D., Duke, 1935 and 1938; Surgery.

Josiah Charles Trent, A.B., Duke, 1934; M.D., Pennsylvania, 1938; Surgery.

WARNER LEE WELLS, M.D., Duke, 1938; Surgery.
DAVID A. WILSON, B.A., Wooster, 1932; M.A., Wesleyan, 1933; M.D., Ohio, 1938; Surgery.

CHARLES EDGAR HAINES, JR., M.D., Duke, 1937; Urology.
COLLINS FREMONT HALL, B.S., Gettysburg, 1934; M.D., Duke, 1938; Otolaryngology and Ophthalmology.

EDWIN HALE THORNHILL, M.D., Duke, 1938; Otolaryngology and Ophthalmology.

Trogler Francis Adkins, M.D., Duke, 1935; Obstetrics and Gynecology.

ROBERT NOWELL CREADICK, B.A., Wesleyan, 1933; M.D., Yale, 1937; Obstetrics and Gynecology. ALBERT FRANCIS LEE, B.S., Puget Sound, 1935; M.D., Duke, 1937; Obstetrics

and Gynecology.

JAMES ALLEN WILSON, B.A. and M.D., Texas, 1935 and 1939; Endocrinology. JEAN McNutt Martin, B.S., William and Mary, 1932; M.D., Virginia, 1936;

Pediatrics.

HENRY GEORGE MORTON, B.S. and M.D., Duke, 1936 and 1937; Pediatrics. DOROTHY BRYAN WYVELL, A.B. and M.D., Duke, 1934 and 1938; Pediatrics. George Gayland Gilbert, B.S., Kenyon, 1934; M.D., John Hopkins, 1938; Student Health.

Albert Archer Parrish, A.B. and M.D., Duke, 1933 and 1938; Student Health. James Eugene Hemphill, B.A., Hampden-Sydney, 1933; M.D., Virginia, 1937;

CARLTON LEE OULD, B.A. and M.D., Duke, 1931 and 1937; Radiology.

ATTICUS JAMES GILL, M.D., Duke, 1938; Pathology.

WILLIAM STERRY BRANNING, B.S., North Carolina, 1934; M.D., Yale, 1939; Biochemistry.

Internes

ROBERT MARTIN BIDDLE, M.D., Duke, 1939; Medicine. ERASTUS GENAIR GOODMAN, JR., M.D., Duke, 1940; Medicine. JOSPEH SPURGEON HIATT, JR., A.B. and M.D., Duke, 1936 and 1938; Medicine. LESTER HENRY MARGOLIS, A.B., Johns Hopkins, 1936; M.D., Duke, 1940; Medicine.

GLENN CARRAWAY NEWMAN, B.S. and M.D., Duke, 1938 and 1939; Medicine. RAY O. Noojin, A.B., Alabama, 1933; M.D., Rush, 1937; Medicine. SAMUEL WATSON PAGE, JR., B.S., Clemson, 1935; M.D., Johns Hopkins, 1940;

Medicine.

WILLARD GROESBECK SNOW, A.B., Utah, 1934; M.D., Harvard, 1939; Medicine. Felix M. Adams, Jr., B.S., Oklahoma, 1935; M.D., Duke, 1939; Surgery. Waldo Otis Badgley, B.S., Michigan State, 1935; M.D., Duke, 1939; Surgery. WILLIAM SWINDELL CREDLE, M.D., Virginia, 1940; Surgery.

WILLIAM HENRY FULMER, A.B. and M.D., Duke, 1937 and 1940; Surgery. HAROLD BARKER KERNODLE, M.D., Duke, 1939; Surgery. HAROLD HUNTER KUHN, B.S. and M.D., Duke, 1938 and 1940; Surgery. JOHN LYFORD, III, A.B., Yale, 1934; M.D., Johns Hopkins, 1940; Surgery. ATTILIO D. PUPPEL, A.B. and M.D., Ohio State, 1937 and 1940; Surgery. LELLAND JOSEPH RATHER, A.B., Johns Hopkins, 1934; M.S., Chicago, 1935;

M.D., Johns Hopkins, 1939; Surgery.

CLARENCE JOSEPH SAPP, A.B. and M.D., Duke, 1937 and 1940; Surgery. Alfred Faxon Henderson, B.A. and M.D., Duke, 1933 and 1937; Urology. ROBERT WILLIAM AUGUSTINE, B.S., Nebraska, 1935; M.D., Rush, 1937; Orthopaedics.

EARL WILLIAM ROLES, B.S. and M.D., Hahnemann, 1928 and 1932; Ortho-

paedics. James Wilbur Sachs, B.S. in Med. and M.D., Duke, 1936 and 1938; Otolaryn-

gology and Ophthalmology. THOMAS GILBERT SCHNOOR, B.S. in Med. and M.D., Duke, 1938 and 1939;

Otolaryngology and Ophthalmology.

ROBERT LEONHARDT ALTER, M.D., Duke, 1937; Obstetrics and Gynecology. COURTLANDT DIXON BERRY, B.A., Wesleyan, 1934; M.D., Duke, 1938; Obstetrics and Gynecology.

EDWARD WILLIAM COLBY, B.S., New Hampshire, 1935; M.D., Albany, 1939; Obstetrics and Gynecology.

LYNDON EDMUND LEE, Jr., B.S. and M.D., Duke, 1937; Obstetrics and Gynecology.

James Mazyck Wilson, A.B., Princeton, 1933; M.D., South Carolina, 1937; Obstetrics and Gynecology.

James Madison Covincton, Jr., B.S., Davidson, 1934; M.D., Duke, 1938; Obstetrics and Pediatrics.

WILLIAM CARTER HAWKINS, M.D., Duke, 1940; Obstetrics and Pediatrics. Dossey Howze McFadden, A.B., Presbyterian, 1934; M.D., South Carolina, 1938; Obstetrics and Pediatrics.

ROBERT JENNINGS MURPHY, JR., B.S., State Teachers, Tenn., 1936; M.D., Vanderbilt, 1940; Obstetrics and Pediatrics.

PAUL TABER FORTH, A.B., Michigan, 1937; M.D., Duke, 1940; Pediatrics. CHARLOTTE EVELYN PARKER, A.B., Duke, 1936; M.D., Johns Hopkins, 1940;

Pediatrics. RUFUS WINSTON ROBERTS, JR., M.D., Duke, 1940; Pediatrics.

HARVEY GRANT TAYLOR, A.B., San Jose State, 1928; A.M., Stanford, 1927; M.D., Duke, 1940; Pediatrics.

PATTI MARIE SILLS THORNHILL, A.B. and M.D., Duke 1937 and 1940; Pediatrics. IVAN WILLARD BROWN, JR., B.S. and M.D., Duke, 1940; Pathology.

Douglas Durston Fear, A.B., Hamilton, 1935; M.D., Johns Hopkins, 1939; Pathology.

DAVID WATSON GODDARD, A.B. and M.D., Duke, 1936 and 1940; Pathology. BOTHWELL GRAHAM, A.B., Presbyterian, 1933; M.D., Virginia, 1937; Pathology. GEORGE MARGOLIS, A.B., Johns Hopkins, 1936; M.D., Duke, 1940; Pathology. LINUS MATTHEW EDWARDS, JR., D.D.S., Northwestern, 1940; Dentistry. CLYDE THOMPSON HARDY, JR., B.A., Richmond, 1938; Administration. REID THOMAS HOLMES, A.B., Duke, 1939; Administration. WILLIAM WILSON LOWRANCE, B.S., Davidson, 1939; Administration.

JOHN WATKINS RANKIN, A.B., North Carolina, 1939; Administration. HUNTER LIGGETT KELLEY, B.S. in Pharm., North Carolina, 1940; Pharmacy.

COMMITTEES OF THE SCHOOL OF MEDICINE

ADMINISTRATIVE COUNCIL OF THE SCHOOL OF MEDICINE

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R. L. FLOWERS, Acting President, Secretary, and Treasurer W. C. DAVISON, Dean

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* Deceased, October 16, 1940.

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Huntington, West Virginia	FEORGE M I VON
	JEONGE HI. IJION

GENERAL STATEMENT

Duke University School of Medicine and Duke Hospital were established in 1925, through the munificent gift of the late James B. Duke. The School of Medicine has been planned to insure the greatest correlation between the various departments. These facilities are available also for students who are studying for degrees other than that of Doctor of Medicine. The School of Medicine has been approved as Class A by the American Medical Association and also is a member of the Association of the American Medical Colleges. On October 3, 1940, two hundred and sixty-two students were enrolled.

FACILITIES OF THE HOSPITAL

Duke Hospital has every modern convenience for the diagnosis, proper care, welfare and comfort of the patients, both private and charity, white and colored, whether they come from Durham or from a distance. It has 604 beds, including 50 bassinets for newly born infants. *Medicine*, including dermatology and neurology, has 75 ward beds; *surgery*, including urology, otolaryngology, ophthalmology and orthopaedics, 143 ward beds; *obstetrics*, including *gynecology*, 56, and 50 bassinets; *neuropsychiatry*, 23; and *pediatrics*, 52. There are 205 private rooms and semiprivate cubicles, 7 operating rooms, and 4 obstetric delivery rooms. Offices and examining rooms for the members of the Medical Faculty are located in the Hospital. The Hospital has been approved for interneships and residencies by the Council on Medical Education and Hospitals of the American Medical Association.

Duke Hospital and its Public Dispensary were opened for patients on July 21, 1930. One hundred and forty-eight thousand, five hundred and twenty-six individuals have been examined, diagnosed, and treated up to October 1, 1940. The average daily census of hospital patients is 375; 85,536 visits were made to the Public Dispensary during the past year. Fifteen per cent of the patients come from within a radius of twenty miles, the remaining 85 per cent come from the other 99 counties in North Carolina and from 36 other states. The average distance traveled by the patient is more than 70 miles.

Every effort is being made to co-operate with the medical profession, and patients are asked to return to the physicians who referred them to the Hospital and Clinic.

Public Ward Patients. Duke Hospital cannot give charity treatment to all who apply; therefore, patients whose incomes are less than \$15 per week should apply to the Public Dispensary Division of the Duke Clinic on the days and hours listed below. The hospital fees consist of four classes of flat daily rates (private, semiprivate, semicharity, and charity), which cover all hospital costs, including those usually charged as extras, thereby making it possible to estimate, in advance, the probable cost of hospitalization and to adjust the bill to the patient's resources. This

policy of basing the rate upon the amount the patient can pay, rather than on the actual cost, has enabled many, who, under the former system, unnecessarily were objects of charity, to maintain their self-respect by contributing a fixed sum within their means. The actual cost to the Hospital for public care is over \$5.00 daily; but in order to meet the greatly increased demand for charity work, Duke Hospital adopted the co-operative plan of paving half the cost, provided the patient's local welfare department co-operated by paying the other half. This is in accordance with Mr. Duke's plan that the communities share, with the Duke Endowment, the burden of charity patients, instead of either carrying all of it. Although 87 per cent of the patients pay less than cost, the revenue from patients, their friends, the counties, and the Duke Endowment provides approximately half of their expenses. By having every patient contribute in accordance with his means, the balance, which Duke Hospital gives in charity or less than cost service, has been spread over a larger number of people. Instead of giving complete and pauperizing charity care to four thousand patients, the Hospital has been able to assist approximately thirteen thousand individuals annually to obtain medical care for which they could not pay the full cost.

Public Dispensary Division of the Duke Clinic. The general policy of admitting patients to the Public Dispensary and Wards is to consider carefully their financial and social status; income and size of family, special responsibilities and the probable cost of treatment, all being weighed in determining admission. A married patient, for instance, with an income of less than \$15 per week is considered admissible to the Public Wards or Public Dispensary for ordinary conditions; the income limit, of course, varying according to the other factors which affect the patient's financial status. Those who are able to pay the ordinary fees of consultants and specialists are not admitted to the Public Dispensary, but may make arrangements through their own physicians for examinations by any member of the Hospital Staff or in the Private Diagnostic Clinic.

SCHEDULE OF THE PUBLIC DISPENSARY DIVISION OF THE DUKE CLINIC. Closed on Saturdays, Sundays, and holidays. Patients must register at the times listed. Appointments should be made in advance.

Registration hours: White patients, 12:15 P.M., and colored patients at 1:00 P.M., unless otherwise noted below.

General Medicine
General Surgery
Obstetrics and Gynecology
(Women's Diseases)
Children's Diseases*
Neuropsychiatry
Eye
Ear, Nose, and Throat
Bone and Joint Diseases
Tumors
Dentistry
* Also at 9 A.M.

Monday, Tuesday, Wednesday, Thursday, and Friday.

Urinary and Kidney Diseases: Tuesday and Friday.

Cystoscopy: Monday, Wednesday, and Friday.

Syphilis: Thursday, Children at 9:00 A.M., and Adults at 6:00 P.M. Asthma and Hay Fever: Tucsday at 9:00 A.M. and Friday at 1:00 P.M.

Diabetes
Infant Feeding

Tuesday at 9:00 A.M.

Dermatology: Wednesday at 9:00 A.M.

Fracture: Friday at 9:00 A.M.

Pneumothorax (chest and tubercular): Thursday at 9:00 A.M.

Endocrine (sterility, menstrual disorders, etc.): Tuesday, Wednesday, Thursday, and Friday 8:30 A.M.-12:00 M.

Hematology (diseases of the blood): Monday at 1:00 P.M.

Bronchoscopy: Monday at 1:00 P.M. Neurology: Wednesday at 9:00 A.M.

The Public Dispensary charge is from \$1.00 to \$5.00 for the first visit to any department, plus the actual cost of X-rays and other materials used. For the return visits to the regular clinics, the rate is from twenty-five cents to seventy-five cents for consultation or completion of examination; and \$1.00 for patients who have not been instructed to return, but who do so on their own initiative. In order to co-operate with the medical profession, anyone who wishes to attend the Public Dispensary should consult, and bring a letter from his or her own physician. All patients accompanied by their physicians are admitted free to the Public Dispensary Division.

PRIVATE PATIENTS. Patients who can pay the ward and private rates may at any time, through their family physicians, in consultation with any member of the Hospital Staff, make reservations by telephoning to the Admitting Office. Appointments for private examinations and treatments may be made in advance by telephoning to members of the Hospital Staff or to the Private Diagnostic Division of the Duke Clinic.

Private Diagnostic Division of the Duke Clinic. This division was organized to co-ordinate the diagnostic studies, and to give better care for the complicated problems arising in the examination of private patients. The Clinical Staff of Duke Hospital and School of Medicine forms the professional staff of this Clinic, while the financial side is handled by a business manager. The offices and examining rooms are in Duke Hospital, and all the laboratory and diagnostic facilities of the Hospital and School of Medicine are utilized by the Clinic. A complete diagnostic survey usually requires from one to four days, and the charges generally range from \$15 to \$75, the amount depending on the work required and on the financial condition of the patient. As soon as each examination has been completed, a full report describing the results of the diagnostic studies is forwarded to the physician who referred the patient.

SCHOOL OF NURSING

MARGARET I. PINKERTON, B.S., R.N., Dean of the School of Nursing and Professor of Nursing.

Bessie Baker, B.S., R.N., Dean Emeritus of the School of Nursing.

Ann H. Gardiner, B.S., M.S., R.N., Assistant Professor of Nursing Education.

Julia E. White, A.B., R.N., Assistant to the Dean.

Margaret E. Dudley, R.N., Assistant to the Dean.

The next class of students will be admitted to the Duke University School of Nursing on October 2, 1941, but applications will be considered at any time after January 1, 1941. Further information about the entrance and other requirements, length of the course, tuition fees, application forms, and bulletins may be obtained by writing to the Dean of the School of Nursing, Duke University, Durham, N. C.

SCHOOL OF DIETETICS

ELSIE W. MARTIN, A.B., M.S., Professor of Dietetics. Jane Hereford, B.S., Administrative Dietitian. Frances Campbell, B.S., Therapeutic Dietitian. Ada Howe, B.S., Therapeutic Dietitian. MILDRED C. DUFF, B.S., Administrative Dietitian. ARTHEALIA E. MITCHELL, B.S., Administrative Dietitian.

In addition to the training of medical students and nurses in dietetics, six student dietitians may be admitted to the School of Dietetics and given the certificate of graduate dietitian after the successful completion of one year. The entrance requirements are a Bachelor's degree from an approved university or college, with majors in nutrition and institutional management, and the courses in chemistry, biology, social science, and education recommended by the American Dietetic Association. The course for student dietitians provides instruction in all phases of hospital and institutional dietetics, including experience from the buying and storage of food to its service to the patient according to the physician's orders. In addition, the student dietitians are required to complete the courses in biochemistry, nutrition, and selected portions of physiology as given to the medical students.

More detailed information and application blanks may be obtained from the Professor of Dietetics, Duke University School of Dietetics, Durham, N. C. The course starts the first Monday in September, but applications for appointments should be made before February 1. No tuition is charged, but a registration fee of \$10 is payable at the time of appointment; maintenance is provided.

HOSPITAL ADMINISTRATION

F. V. ALTVATER, A.B., A.M., Superintendent. F. R. PORTER, A.B., Assistant Superintendent. H. C. MICKEY, B.B.A., Assistant Superintendent. C. H. Cobb, Ph.G., Business Manager Medical Division. E. S. Raper, A.B., Business Manager Surgical Division.

Three or four interneships in hospital administration leading to a certificate are available to university graduates, whose character, tact, and ability for leadership are good, and whose academic standing is high. These interneships are of three years' duration and pay a small salary in addition to room, board, and laundry. Vacations of two weeks are allowed at the beginning of the second and third years of interneship.

The instruction is practical rather than theoretical in emphasis. The internes are rotated through five different assistant administrative positions in the Hospital. There is also a weekly seminar lasting two hours.

During these three years, the internes also register in the Graduate School of Duke University, and receive the A.M. degree after the successful completion of a thesis and twenty-four semester hours of University courses in various fields. Further information may be obtained by writing to the Superintendent, Duke Hospital, Durham, N. C.

COURSE IN LABORATORY TECHNIQUE

DAVID T. SMITH, A.B., M.D., Professor of Bacteriology.
HAYWOOD M. TAYLOR, B.S., M.S., Ph.D., Associate Professor of Biochemistry.
JAMES R. KLEIN, A.B., Ph.D., Instructor in Biochemistry.
OSCAR C. E. HANSEN-PRÜSS, A.B., M.D., Associate Professor of Medicine.
DONALD S. MARTIN, A.B., M.D., Associate Professor of Bacteriology and Mycology.

The course in laboratory technique includes training in blood chemistry, clinical microscopy, bacteriology, serology, basal metabolism, and pathology. The course, which is approved by the Registry of Technicians of the American Society of Clinical Pathologists, begins August 1 and lasts eighteen months. Two years of college work are required with credits in biology or zoology, and inorganic, analytical and organic chemistry. The registration fee is \$75, and there are no additional charges, except for breakage. The students live in town at their own expense. Applications may be sent to Dr. David T. Smith, Duke Hospital, Durham, N. C.

ANESTHESIA

MARY H. MULLER, R.N., Instructor in Anesthesia. MARY H. SNIVELY, R.N., Instructor in Anesthesia. ELIZA D. GOODMAN, R.N., Assistant in Anesthesia. ALMA S. HAMM, Assistant in Anesthesia.

Duke Hospital offers to registered nurses from accredited schools of nursing a twelve months' course in anesthesia, which includes the theory and practice of anesthesia. The tuition fee of \$100 covers all expenses of the course, including maintenance. Applications may be sent to Miss Mary H. Muller, Duke Hospital, Durham, N. C.

MEDICAL SOCIAL SERVICE

RUTH E. BARKER, A.B., M.S., Instructor in Medical Social Service. ELMA O. PHILLIPSON, A.B., M.A., Assistant in Medical Social Service. RUTH B. BENNETT, A.B., M.S.S., Assistant in Medical Social Service.
MARIA FERRO, A.B., M.A., Assistant in Medical Social Service.
MRS. WM. H. PETTUS, JR., A.B., B.S., M.S., Assistant in Medical Social Service.

Case work service is offered to patients referred by physicians within the Hospital, by outside social service agencies, or upon the patient's own application. Assistance and advice in connection with the problems presented are available to the members of the Staff and referring agencies. The division also provides lectures, consultations, and discussions for students of medicine and nursing, and serves as an agency for supervised field work experience for students of the graduate school of the University of North Carolina. Further information concerning training for advanced students may be obtained from the Social Service Division, Duke Hospital, Durham, N. C.

RECORD LIBRARY

JESSIE HARNED, R.R.L., Medical Records Librarian

A course for the training of medical records librarians, which has been given full approval by the American Association of Medical Records Librarians, includes all details of the theory and practice of clinical record library methods. The length of the training is twelve months. The tuition fee is \$100 and does not include maintenance. Applications may be made to the Medical Records Librarian, Duke Hospital, Durham, N. C.

POSTGRADUATE STUDY

The School of Medicine is not limited to the training of its own students and Staff, but extends to the members of the medical profession the benefit of everything it has. Graduates in medicine are welcomed especially at the various clinics and demonstrations in medicine, surgery, obstetrics, and other specialties, which are held from 9 A.M. to 12:30 P.M. each Saturday and at the clinical-pathological conferences at 5 P.M. on Fridays. Postgraduate interneships, for one or two weeks, are available to physicians in practice. No fees are charged; room and board can be obtained for \$10 per week. A three-day postgraduate symposium is given each October. Further information may be obtained by writing to the head of the department concerned or to the Dean.

INTERNESHIPS AND RESIDENCIES

Interneships of one year's duration with room, board, laundry, and uniforms furnished, but without salary, are available in *surgery* (including general surgery, urology, and orthopaedics), *orthopaedics*, *urology*, *otolaryngology*, *dentistry*, *obstetrics* and *gynecology*, *endocrinology*, *pediatrics*, and *pathology*, commencing each July and September.

Medical interneships (including dermatology, neurology, and psychiatry) are of two years' duration, the interne rising by progressive stages of two months each to senior house officer. After one year's service the interne has the rank and emoluments of an assistant resident. Services begin in July, November, and March.

Application blanks for all interneships, which must be returned by November 1, may be obtained by writing to the Superintendent, Duke Hospital, Durham, N. C. Graduates of any Class A medical school are

eligible for interneships.

After the completion of an interneship in Duke Hospital or in another acceptable hospital, a certain number may be appointed as assistant residents in medicine, surgery, obstetrics and gynecology, pediatrics, psychiatry, neurology, dermatology, orthopaedics, urology, otolaryngology, roentgenology, pathology, biochemistry, or the Student Health Service, or as fellows of the Private Diagnostic Clinic, at a salary of \$250 to \$500 per year with maintenance, and eventually may be promoted to the residency in the various departments or subdepartments of the Hospital at an annual salary of \$500 to \$1,000 with maintenance. Applications should be made to the head of the department concerned.

The Hospital and School of Medicine are an integral part of the Duke University campus and its educational, recreational, and athletic facilities

are available for the Resident Staff.

The present Resident Staff of ninety-five consists of a resident, nine assistant residents, and eight internes in medicine; an assistant resident in dermatology and syphilology; a resident, eight assistant residents, and ten internes in surgery (the seven surgical assistant residents are assigned in rotation to general surgery, pathology and orthopaedics); two residents, two assistant residents, and two internes in otolaryngology and ophthalmology; a resident, three assistant residents, and five internes in obstetrics and gynecology; four internes in obstetrics and pediatrics; an assistant resident in endocrinology; three assistant residents and five internes in *pediatrics*; a resident and two assistant residents in *radiology*; a resident and two internes in orthopaedics; a resident, an assistant resident and an interne in urology; a resident in psychiatry; a resident in neurology; an assistant resident and five internes in pathology; an assistant resident in biochemistry; three assistant residents on the Private Medical Service; one interne in dentistry; two assistant residents on the Student Health Service; four internes in Administration; and one interne in Pharmacv.

LIBRARY

JUDITH FARRAR, A.B., B.S., Librarian. MILDRED PERKINS FARRAR, Assistant Librarian.

"To study the phenomena of disease without books is to sail an uncharted sea, while to study books without patients is not to go to sea at all."—SIR WILLIAM OSLER.

In addition to the general library of Duke University and the departmental libraries of biology, chemistry, physics, etc., which have 562,302 volumes available for medical students, Duke Hospital Library contains 37,933 volumes of American and foreign medical literature and subscribes to 415 current American and foreign medical and other scientific journals. These books and journals are available daily from 8:20 A.M. to 11:00 P.M. for the students, nurses, staff, and medical profession.

MEDICAL CARE

JOSEPH A. SPEED, Physician in Charge, JEAN M. MARTIN, Assistant Physician. GEORGE G. GILBERT, Assistant Physician. ALBERT A. PARRISH, Assistant Physician.

With the exceptions noted below, full medical and surgical care is furnished to all regularly matriculated medical students of the University for the health fee of \$3.33 per quarter. This service is under the direction of the Physician in Charge with the co-operation of the Staff of Duke Hospital. It includes hospitalization (limited to thirty days), medical and surgical care, drugs, dressings, X-ray studies, and ward but not special nursing. A charge for board is made at the same rate as in the University dining halls, and student meal tickets for these halls are accepted in payment of this board. Refraction of eyes and treatment of teeth and of all chronic and pre-existing conditions, such as diseased tonsils, hernias, elective surgery, chronic skin condition, endocrine disturbances, etc., or accidents or illnesses occurring during vacations or while off the campus, are not included in this service. The cost of any necessary braces and orthopaedic appliances, as well as of special nursing, must be borne by the student.

STUDENT GOVERNMENT

The members of the student body elect an Honor Council in which each class is represented. It is the duty of the Honor Council to hear all cases involving breaches of conduct on the part of members of the student body. All new students entering the School are required to comply with this system of government.

THE DUKE UNIVERSITY MEDICAL SOCIETY

This society was organized to facilitate the presentation of current medical problems before the students, Staff, and other interested persons in the University and professional community. Meetings are held monthly during the academic year, and the programs usually consist of short case presentations and discussions followed by a description of some staff or student research project. Occasionally guest speakers from other institutions are invited to participate in the programs.

The Duke Medical Historical Society was organized by the students of Duke University School of Medicine in the autumn quarter of 1939, with eighteen members. Meetings are held every two weeks, and at each meeting, one of the members, or a guest speaker, talks on some phase of medical history.

APPLICATION FOR ADMISSION

Application forms may be obtained by writing to the Committee on Admission, Duke University School of Medicine, Durham, N. C. If further information is required after the Committee has studied the completed application, a personal interview with the Committee on Admission or a Regional Representative is arranged for the applicant. The candi-

date then is notified as soon as possible whether he has been accepted or declined; if accepted, he must send a deposit of \$50 within two weeks to insure enrollment. This money is applied toward the tuition. First-year students are admitted only at the beginning of the Autumn Quarter, but applications should be completed prior to March 15. The number of students in each class is limited to 70, but only those students will be accepted who give promise of being a credit to the School and the medical profession. Women are received on the same terms as men. In the event of vacancies, students from other medical schools may be considered for admission to any quarter for which their previous training has fitted them. Each application for advanced standing will be considered upon its own merits.

REQUIREMENTS FOR ADMISSION

"I request that great care and discrimination be exercised in admitting as students only those velose previous record shows a character, determination and application evincing a wholesome and real ambition for life."—James B. Duke.

Intelligence and character are the essential qualifications for admission.

The minimum requirements* for admission to this School include approved college credits of not less than three full academic years, which shall include adequate preparation in English, mathematics, physics, biology, and chemistry. This preparation should be obtainable in college courses of one year duration except for chemistry. In that subject a two-year course is recommended; first year to cover general (inorganic) chemistry, the second, analytical and organic chemistry.

The premedical student should be aware of the importance of a well-rounded general education as preparation for the study of medicine and not limit himself to scientific courses. He would be better advised to secure a knowledge of the principles, and a thorough appreciation of the interrelations, of the basic sciences than to accumulate credits in many courses. He should learn how to work independently, observe critically, and to analyze, rather than simply store the information presented. His choice of studies, beyond those required for admission, should be governed by his own chief interests and by the intellectual stimulus to be derived from the work. His major interest may be in any field, scientific or otherwise, and should provide an opportunity for the demonstration of his real ability. In general he should avoid courses in subjects which are included in the medical curriculum.

Selection of students is based upon the quality rather than the quantity of preparation and upon demonstrated evidence of personal attributes of intelligence, character, and general fitness for the study and practice of medicine. In considering an applicant many sources of information may be consulted, including (1) his curricular and extracurricular college record, (2) carefully prepared, confidential appraisals by teachers who know him personally, (3) his percentile rating on the Medical Aptitude Test,** and (4) the results of an interview with members of the Adminsion Committee or one of its Regional Representatives.

^{*} J.A.M.A., 113: 767 (Aug. 26) 1939 and 114: 1924 (Mav 11) 1940.

** This test is given at many of the colleges during the Autumn term. If information is not available locally, it may be secured from Dr. F. A. Moss, Columbia Medical Building, Washington, D. C.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN MEDICINE

After the completion of six quarters in the Duke University School of Medicine, Duke University, on the recommendation of the Executive Committee, grants the degree of Bachelor of Science in Medicine to medical students who have completed creditable investigative work, prepared an acceptable report of the investigation, and passed an examination upon the subject of the investigation before an advisory committee. Students who elect to undertake work toward this degree must obtain written permission from the Executive Committee after approval of their program by the head of the department in which the work is to be done. No credit toward this degree is given for additional college work, and students who have a Bachelor's degree are not eligible, but all students in good standing are encouraged to undertake such investigative work as they may elect when approved by the Curriculum Committee and the head of the department in which they wish to work. All requirements must be completed prior to April 15 of the year in which the B.S. degree is requested.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF MEDICINE

The degree of Doctor of Medicine is conferred on those who have completed, to the satisfaction of the Executive Committee, the twelve quarters of the curriculum of the School of Medicine, the preclinical and clinical examinations, and have signed an agreement that they will spend at least two of the succeeding three years in hospital or laboratory work acceptable to the Executive Committee. As a guarantee of this pledge, the diploma is deposited in the Treasurer's Office until after the completion of this training. Failure to fulfill this agreement constitutes a waiver of any claim to possession of the diploma and the degree of Doctor of Medicine.

DEPARTMENTS OF INSTRUCTION

Anatomy

F. H. SWETT, Professor of Anatomy.

D. C. HETHERINGTON, Associate Professor of Anatomy in Charge of Histology and Neurology.

W. H. HOLLINSHEAD, Assistant Professor of Anatomy.

J. W. Everett, Assistant Professor of Anatomy. K. A. YOUNGSTROM, Instructor in Anatomy.

T. L. PEELE, Instructor in Anatomy.

G. J. Baylin, Instructor in Anatomy and in Radiology. K. L. Duke, Instructor in Anatomy. E. C. Beyer, Assistant in Anatomy. . C. STAUFFER, Assistant in Anatomy.

H. FINKELSTEIN, Assistant Professor of Surgery in Charge of Surgical Anatomy.

JANE STANLEY CRAIG, Research Assistant.

Five days per week during the Autumn Quarter and two days per week during the Winter Quarter are scheduled for the required courses of instruction in gross human anatomy, histology, and neurology. In all of this work considerable freedom is allowed the student in his selection of working hours and in the planning of his own methods of attack. Emphasis is placed upon the study of material in the laboratory, supplemented by a few lectures and by frequent small-group conferences upon any phases of the work then current. All of the instruction is designed to be as informal and as nearly individual as possible. General principles and the functional viewpoint of living anatomy are stressed in the hope that the student may be stimulated to secure a working knowledge of anatomy in the broadest sense. Whenever possible, fresh tissues and living cells are made available for examination, and clinical cases exemplifying anatomical principles are studied whenever they are available at appropriate times. Through the co-operation of the Department of Roentgenology, the students are given an opportunity to study portions of the living human body as revealed by the fluoroscope and roentgenograph.

Surgical Anatomy. This course is offered by members of the surgical staff and is open to a limited number of Senior students. Anatomy as applied to surgery is studied, at the dissecting table, from the diagnostic and the operative points of view. Winter Quarter only, Tuesday and Thursday mornings.

Demonstrations and Seminars. Using dissections already prepared, weekly demonstrations of selected regions or systems are made by the members of the group. A special feature is the seminar which follows each demonstration. Spring Quarter—Two hours per week by arrangement. Second year in groups of 10.

Special Neuro-anatomy. Laboratory work and conferences upon selected portions of the human central nervous system. Winter Quarter— Tuesday and Thursday mornings—plus one additional (conference) hour per week—limited to six Junior and Senior students.

Brain Modeling. Free hand reconstruction in clay, from gross and sectioned material, of the chief tracts and nuclei of the human brain stem. A two-quarter course, Winter and Spring Quarters. Tuesday and Thursday mornings-4 to 10 students.

Advanced Neuro-anatomy. Laboratory work and conferences upon certain structural details of the nervous system and the eye and ear. Spring Quarter. Tuesday and Thursday mornings-4 to 10 Junior and

Senior students.

Experimental Neurology. An operative and laboratory study of the effect of various lesions upon the central and peripheral portions of the nervous system. Spring Quarter. Tuesday and Thursday mornings-4

to 8 students. Prerequisite—operative surgery.

Advanced Studies in Anatomy. Further work in the several branches of anatomy may be arranged at any time. Prospective candidates for such work should discuss their wants with the member of the Staff in charge of the particular field in which work is requested because only a small number can be accommodated at any one time. A few properly qualified students may be permitted to undertake original research under the direction of various members of the Staff.

Biochemistry

W. A. Perlzweig, Professor of Biochemistry.

H. M. TAYLOR, Associate Professor of Biochemistry and Toxicology.
MARY L. C. BERNHEIM, Assistant Professor of Biochemistry.

MARY L. C. BERNHEIM, Assistant Professor of Biochemistry. HANS NEURATH, Assistant Professor of Biochemistry. T. B. COOLIDGE, Associate in Biochemistry. W. M. NICHOLSON, Associate in Medicine and Biochemistry. J. S. HARRIS, Associate in Pediatrics and Biochemistry. J. R. KLEIN, Instructor in Biochemistry. W. S. BRANNING, Assistant Resident in Biochemistry. H. P. SARRETT, Assistant in Biochemistry. J. W. HUFF, Assistant in Biochemistry. G. R. COOPER, Assistant in Biochemistry. L. O. ERICKSON, Assistant in Biochemistry. J. O. ERICKSON, Assistant in Biochemistry.

The required course in general biochemistry for first-year students is given in the Autumn and Winter Quarters. One morning each week in the Autumn Quarter is devoted, in discussion groups, to the correlation of the fundamental facts and theories of physical and organic chemistry with the chemistry of living organisms. In the Winter Quarter three lectures and four laboratory periods per week, supplemented by systematic reading and weekly conferences in small groups, are devoted to a more intensive study of the chemistry of the physiological processes of digestion and absorption, circulation and respiration, acid-base and salt equilibrium, metabolism including quantitative urine and blood analyses,

Since the success of the students in this course is largely determined by the adequacy and ready availability of their premedical training, it is urged that all students review the fundamental laws, theories, and facts of chemistry before the beginning of the course. A circular outlining the topics requiring special attention is sent to all students upon admission.

Additional copies of the circular may be obtained from the Dean's Office. An examination to test the state of preparation of the student is given

in the beginning of the course in biochemistry.

Electives. In connection with the course given in the Spring Quarter for second-year students a survey of pathological and clinical chemistry is presented. In this course are covered abnormalities of: protein, fat and carbohydrate metabolism, acid-base regulation, salt and water distribution, nitrogen retention, calcium and phosphorous metabolism, blood and derived bile pigments. The discussion of these topics is based upon case histories, including the records of the Clinical Chemical Laboratory of the Hospital.

Biochemical Research. The facilities of the department, including various types of research equipment and the clinical material of the blood chemistry laboratory, are available to properly qualified students for independent or supervised investigations. Chemical investigations of problems in biochemistry or in conjunction with the clinical departments and

the Department of Pathology may be carried on.

Seminar in Toxicology. A round-table discussion of the homicidal, suicidal and industrial poisons, alcoholism, etc. Autumn or Spring Quar-

ters by arrangement.

Laboratory Detection of Common Poisons. A laboratory course in the properties, detection, and identification of the common poisons. Consideration is given to the types of material to be examined, legal precautions to be taken and interpretation of the findings. Autumn or Spring Quarters by arrangement.

Chemistry of the Colloidal State. A two-hour seminar is given weekly

throughout the Autumn, Winter, and Spring Quarters.

Physiology, Pharmacology, and Nutrition

G. S. Eadie, Professor of Physiology and Pharmacology.

Hans Löwenbach, Assistant Professor of Neuropsychiatry and Physiology.

F. D. McCrea, Associate Professor of Physiology and Pharmacology.

Frederick Bernheim, Associate Professor of Physiology and Pharmacology.

W. J. DANN, Associate Professor of Physiology and Nutrition.

MACDONALD DICK, Associate in Medicine, Physiology and Pharmacology. E. L. Persons, Associate in Medicine, Dermatology, and Physiology.

H. I. Kohn, Associate in Physiology and Pharmacology, and I'M. I. Kohn, Associate in Physiology and Physiology. J. E. Morgan, Instructor in Roentgenology and Physiology. Philip Handler, Assistant in Physiology and Nutrition.

The required courses consist of: (a) a lecture course in physiology, (b) a lecture course in pharmacology, (c) a lecture course on the elements of nutrition, supplemented by demonstrations of some biological and chemical methods employed in nutrition studies, (d) a laboratory course in physiology and pharmacology, and (e) a seminar in which the problems arising in the laboratory and in the student's reading are discussed.

Elective courses covering particular aspects of these subjects, including pathological physiology and research in special fields, are available.

Research. A few properly qualified students are permitted to undertake original research in physiology, pharmacology or nutrition under the direction of various members of the Staff.

Pathology

W. D. Forbus, Professor of Pathology.

D. H. SPRUNT, Associate Professor of Pathology.

R. D. Baker, Assistant Professor of Pathology.

C. C. ERICKSON, Instructor in Pathology. A. J. GILL, Assistant in Pathology. I. W. Brown, Jr., Assistant in Pathology.

D. D. Fear, Assistant in Pathology.
D. W. Goddard, Assistant in Pathology.

BOTHWELL GRAHAM, Assistant in Pathology.

George Margolis, Assistant in Pathology.

C. D. BERRY, Assistant in Pathology.

R. N. CREADICK, Assistant in Pathology.
P. W. SCHANHER, JR., Assistant in Pathology.
J. C. TRENT, Assistant in Pathology.

GRACE P. KERBY, Research Assistant in Pathology.

The required course in general pathology for second-year students is given in the Autumn and Winter Quarters. The class is divided into small groups, one instructor and an assistant being assigned to each group. For the purpose of teaching the gross pathological alterations of tissue, the museum material, which consists of complete cases preserved as units. has been classified into well-organized groups, such as obstructions, diseases due to animal parasites, tumors, etc., each group of materials being placed in a separate laboratory. The various student groups work with these groups of material in rotation. The microscopic aspects of pathological processes are studied by the students at the same time the gross pathological features of the disease are being considered. Physiological, chemical and bacteriological phases of the various disease processes are presented to the student by constant reference to the autopsy protocols and clinical studies of the cases which are being considered by the groups, and by visits to the hospital wards. Once each week a clinic is presented for the class; the subjects of the clinics are cases from the Hospital which illustrate pathological processes being currently studied. Lectures on general subjects of wide application are given in co-ordination with the museum case studies. Attendance at autopsies is required of the students of the second year, the class being divided into small groups which are called in turn. The group members are required to follow all studies of the cases which they see and to prepare their own complete records. Cases thus prepared are presented by the students before the entire class under the direction of the Staff.

Elective courses in pathology in the Spring Quarter are available for a limited number of students who have completed the course in general pathology. Research facilities are provided in the department for students who are competent to undertake investigation.

On Fridays at 5 P.M., during the Autumn, Winter, and Spring Quarters, a clinical-pathological conference is held in co-operation with

the staffs of the clinical departments. While this conference is designed especially for the Hospital Staff, it is open to all members of the medical profession, and attendance is expected of second year, Junior and Senior students. A gross diagnostic clinical-pathological conference on current autopsies is held weekly in collaboration with the clinical departments. This conference is required of the students of the third and fourth years.

Bacteriology and Parasitology

D. T. SMITH, Professor of Bacteriology and Associate Professor of Medicine. A. S. Pearse, Professor of Zoology.

H. W. Brown, Professor of Preventive Medicine and Public Health.
D. S. Martin, Associate Professor of Bacteriology and Associate in Medicine.
N. F. Conant, Assistant Professor of Bacteriology and Mycology.

MARY A. POSTON, Instructor in Bacteriology.

E. E. Menefee, Jr., Instructor in Medicine and Bacteriology.

N. BOWMAN WISE, James A. Greene Research Fellow in Medicine and Bacteriology.

Bacteriology, Mycology, Immunology, and Parasitology. The required course is given in the Autumn Quarter of the second year. An intensive study is made of the common bacteria, fungi, and parasites which cause disease in man. The scope of the laboratory course is reasonably wide and acquaints the student with all the methods and procedures employed in bacteriological laboratories. Most of the lecture time is devoted to the immunological and epidemiological aspects of infection. The instruction is designed to give the students a clear conception of: (1) how organisms gain entrance to the body, (2) the type of poisons which they produce, (3) the nature of immune bodies which are produced by the host, and (4) the methods of preventing the disease by active and passive immunization.

Research Bacteriology. Opportunities for original investigations are

afforded a few specially qualified students.

Clinical Bacteriology. During their clinical clerkships on medicine (one quarter each for Junior and Senior classes), the students may perform the routine and special bacteriological work for the patients assigned to them on the teaching service, under the direction of the Department of Bacteriology and in parallel with the Biological Division of the medical clinics.

Medicine

Frederic M. Hanes, Florence McAlister Professor of Medicine.

D. T. SMITH, Professor of Bacteriology and Associate Professor of Medicine.
J. M. Ruffin, Associate Professor of Medicine in Charge of Physical Diagnosis.
O. C. E. Hansen-Prüss, Associate Professor of Medicine in Charge of Clinical Microscopy.

Christopher Johnston, Assistant Professor of Medicine.
D. S. Martin, Associate Professor of Bacteriology and Associate in Medicine.
E. L. Persons, Associate in Medicine. WALTER KEMPNER, Associate in Medicine.

MACDONALD DICK, Associate in Medicine, Physiology and Pharmacology. E. S. ORGAIN, Associate in Medicine.

R. W. Graves, Associate in Neurology.

J. P. HENDRIX, Associate in Medicine. W. M. NICHOLSON, Associate in Medicine and Biochemistry.

Susan G. Smith, Associate in Medicine.

J. L. CALLAWAY, Associate in Medicine, Dermatology and Syphilology. R. R. CARTER, Instructor in Neurology.

R. L. CRAIG, Instructor in Neurology. E. B. CRAVEN, JR., Instructor in Medicine.

H. J. Fox, Instructor in Medicine.

S. C. HALL, Instructor in Medicine. G. T. HARRELL, JR., Instructor in Medicine.

J. A. Hitch, Instructor in Dermatology and Syphilology.
T. T. Jones, Instructor in Medicine.
I. H. Manning, Instructor in Medicine.
E. E. Menefee, Jr., Instructor in Medicine and Bacteriology.
E. E. Plummer, Instructor in Syphilology.

P. G. REQUE, Instructor in Medicine, Dermatology and Syphilology.

WILLIAM SCHULZE, Instructor in Medicine. O. N. SMITH, Instructor in Medicine.

J. B. Stevens, Instructor in Medicine. N. Bowman Wise, James A. Greene Research Fellow in Medicine and Bacteriology.

I. T. REAMER, Instructor in Pharmacy.

DAVID CAYER, Assistant in Medicine. P. B. HARDYMON, Assistant in Medicine. H. M. Horack, Assistant in Medicine.

J. D. Hough, Assistant in Medicine. S. S. LAMBETH, Assistant in Medicine. R. C. LINCICOME, Assistant in Medicine. J. H. M. MADDEN, Assistant in Medicine.

C. A. MUNROE, Assistant in Medicine. CLOTILDE SCHLAYER, Research Assistant.

V. C. Scott, Assistant in Medicine. P. W. SMITH, Assistant in Clinical Microscopy.

J. D. THETFORD, Assistant in Medicine.

C. B. VAN ARSDALL, JR., Assistant in Medicine.

K. D. WEEKS, Assistant in Medicine. P. L. WILLIAMS, Assistant in Dermatology and Syphilology.

Clinical Microscopy is given in the Winter Quarter of the second year. The course includes the essentials of hematology and the examination of fresh material, such as urine, stools, spinal fluid, sputum, transudates and exudates. The most important parasites of man are studied by the use of fresh and museum material. Second-year and Senior students are given

opportunities for special work and for investigation.

Physical Diagnosis and Introduction to Clinical Medicine. This course, in the Spring Quarter of the second year, consists of instruction in history taking, physical examination, and the application of the preclinical sciences to the interpretation of findings. All departments, preclinical and clinical, including the specialties, participate. The importance of cooperation between clinic and laboratory is emphasized, and the preclinical departments extend the teaching of their particular branches in correlation with other preclinical and clinical studies. In this manner the course serves as an introduction to clinical medicine. The class is divided into sections of not more than ten students, and each student is given individual instruction.

Junior Medicine. Junior students are assigned in small groups for one quarter to the medical wards as clinical clerks. Teaching rounds are held from 8:30 to 9:30 A.M., on Mondays, Wednesdays, and Fridays. During the Autumn, Winter, and Spring Quarters, medical clinics are given on Mondays, Wednesdays, and Saturdays at 11:30 A.M., and on Wednesdays, during the Summer Quarter.

Therapeutics. Each group of Junior students receives practical instruction in pharmaceutics under the guidance of an instructor in Pharmacy. On Tuesdays and Thursdays from 1:30 to 2:30 P.M. bedside instruction is given in applied pharmacology and therapeutics to the group

on Junior Medicine.

Senior Medicine. Senior students are assigned for one quarter to the Dispensary as clinical clerks. Teaching rounds are held from 9:30 to 11:30 A.M. on Mondays and Fridays. Seniors attend medical clinics on Mondays, Wednesdays, and Saturdays at 11:30 A.M.

Cutaneous Medicine and Syphilology. Instruction is offered each quarter to Senior students consisting of lectures, seminars, and study and

treatment of patients.

Neurological Medicine. A sound understanding of neurological diseases is an essential equipment of every physician. Junior students are assigned neurological cases routinely during their service as medical clinical clerks. An elective course consisting of advanced bedside teaching in clinical neurology is offered for three quarters to Senior students. The Laboratory of Experimental Neurology is available for postgraduate investigative work; this laboratory handles routinely the neurosurgical biopsy material including intracranial tumors. An electro-encephalograph is in routine clinical use in both neurology and neuropsychiatry and is available for special research problems.

Neuropsychiatry

R. S. LYMAN, Professor of Neuropsychiatry.

R. S. CRISPELL, Associate Professor of Neuropsychiatry.

HANS LÖWENBACH, Assistant Professor of Neuropsychiatry and Physiology.

R. B. Suitt, Associate in Neuropsychiatry.

M. H. Greenhill, Associate in Neuropsychiatry.
M. D. Kemp, Instructor in Neuropsychiatry.
D. J. Sullivan, Instructor in Neuropsychiatry.
R. C. Carroll, Assistant in Neuropsychiatry.
J. A. Christenson, Jr., Psychologist.
L. C. Johnson, Fellow in Sociology.

E. J. STAINBROOK, Psychologist.

Instruction is started in the second year with a course that covers psychobiology. This course is concerned with the modern conception of personality, its neurophysiological bases, the growth, development and traits of the individual, normal and abnormal. The students are trained in neuropsychiatric method and examination, and they write a life history, applying those methods to themselves. The problems of intelligence, intelligence testing, and mental deficiency are discussed. Instruction in neuropsychiatry for Junior and Senior students is continued by weekly

lecture-clinics during Autumn, Winter, and Spring Quarters. The didactic work in neuropsychiatry is supplemented by clinics and by the student's actual experience in handling such psychiatric problems as occur on the wards and in the out-patient clinic. Juniors serve as clinical clerks on the psychiatric ward, and Seniors are assigned to the out-patient clinic. In addition, clinics are held in the North Carolina State Hospital, Raleigh, N. C. Elective work is offered to students who are especially interested. Before graduation it is sought to give the student a workable conception of the individual as a whole, the psychobiological unit, that may be applied in practice.

Surgery

DERYL HART, Professor of Surgery.

C. E. GARDNER, JR., Associate Professor of Surgery.

R. R. Jones, Jr., Assistant Professor of Surgery.
J. W. Beard, Assistant Professor of Surgery in Charge of Experimental

E. P. Alyea, Associate Professor of Surgery in Charge of Urology.

W. B. Anderson, Associate Professor of Surgery in Charge of Ophthalmology. W. W. Eagle, Associate Professor of Surgery in Charge of Otolaryngology, Barnes Woodhall, Assistant Professor of Surgery in Charge of Neurosurgery.

HAROLD FINKELSTEIN, Assistant Professor of Surgery.

J. E. Dees, Associate in Urology.

L. D. BAKER, Associate in Orthopaedies. R. B. RANEY, Associate in Orthopaedics. T. W. Atwood, Associate in Dentistry.

D. G. Sharp, Research Associate in Experimental Surgery. A. R. Taylor, Research Associate in Surgery and Biochemistry.

H. M. Schiebel, Instructor in Surgery. W. C. SEALY, Assistant in Surgery. S. E. Upchurch, Instructor in Surgery. L. C. Roberts, Instructor in Urology. Christopher Stuart, Instructor in Urology.

C. H. Waters, Instructor in Orthopaedies.

R. A. Arnold, Instructor in Otolaryngology and Ophthalmology. W. D. FARMER, Instructor in Otolaryngology and Ophthalmology. R. C. Fugate, Instructor in Otolaryngology and Ophthalmology.

G. B. FERGUSON, Instructor in Bronchoscopy.

N. F. Ross, Instructor in Dentistry. W. F. Hollister, Assistant in Surgery. D. L. Lovell, Assistant in Surgery.

W. H. PETTUS, JR., Assistant in Surgery.
P. W. SCHANHER, JR., Assistant in Surgery.
J. C. TRENT, Assistant in Surgery.
W. L. WELLS, Assistant in Surgery.

D. A. Wilson, Assistant in Surgery.
DOROTHY W. BEARD, Research Assistant in Experimental Surgery.

C. E. HAINES, Assistant in Urology. C. F. HALL, Assistant in Otolaryngology and Ophthalmology.

C. F. HALL, Assistant in Otolaryngology and Ophthalmology. E. H. Thornhill, Assistant in Otolaryngology and Ophthalmology.

General Surgery. In the Spring Quarter the second-year students, during their course in physical diagnosis, attend clinics and demonstrations arranged to familiarize them with the techniques of examinations

and the diagnostic procedures used in general surgery and the surgical specialties. Emphasis is placed on the more practical and commonly used methods.

During the Autumn, Winter, Spring, and Summer Quarters, at 11:30 A.M. on Tuesdays and Fridays, and during the Autumn, Winter, and Spring Quarters at 9:30 A.M. on Saturdays, clinics in surgery and the surgical specialties are held for Junior and Senior students. The *Junior* students, during their surgical quarter, attend ward rounds in surgery from 8:30 to 10:30 A.M., on Mondays, Wednesdays, and Fridays, act as clinical clerks on the wards, avail themselves of the electives offered and attend the regular clinics. The surgical group in the *Senior* year attends ward rounds from 8:30 to 10:30 A.M. on Mondays, Wednesdays, and Fridays, the regular clinics and the electives offered, and assists in the surgical dispensary in the afternoons. Individuals may take any of the electives offered.

An elective course in operative surgery is given in the experimental laboratory from 8:30 to 11:30 A.M. on Tuesdays and Thursdays during the Autumn and Spring Quarters. The group is divided into operating teams, and each student takes his turn serving as the operator, first assistant, and anesthetist. During the Winter Quarter special work in experimental surgery may be arranged by conference with the instructor. The purpose of this course is to teach the basic principles of aseptic surgery, anesthesia, and the technique of operations illustrating various types of surgery, the operative procedures being of gradually increasing difficulty.

An *elective* course in emergency and traumatic surgery is given each quarter. In groups of two, each week, Junior or Senior students are on call in the emergency room for all accidents and emergencies. Opportunity is given to observe and assist in the treatment of accident cases and in the diagnosis of acute abdominal emergencies. Lectures, twice each week during the Winter Quarter, supplement this course.

An *elective* course in anesthesia is open to four properly qualified Senior students each quarter. Students meet the anesthetist each morning in the operating room and observe and administer anesthetics under supervision

Ophthalmological Division. During the Spring Quarter second-year students receive instruction in elementary ophthalmology. During the Junior obstetric quarter the students are assigned to the ophthalmological clinic on Tuesday and Friday afternoons for five and one-half weeks, and assist in the study and treatment of eye diseases. Especial emphasis is placed on the underlying medical and surgical conditions. Each student follows throughout his time in the clinic all patients assigned to him. For those who manifest an unusual interest in this specialty, provision will be made for more advanced work. Each quarter an elective is given one hour a week, which includes anatomy, physiology, refraction, muscle imbalance, neuro-ophthalmology, ocular pathology, and the use of diagnostic instruments.

Orthopaedic Division. In the Spring Quarter of the second year an introductory course is given. During the surgical quarters the Junior

and Senior students attend ward rounds at 8:30 A.M. on Mondays and Fridays. Clinics are held during the Autumn Quarter on Friday at 11:30 A.M. for Juniors and Seniors. Students in their Senior Surgical Quarter are assigned in rotation to the orthopaedic dispensary which is held each afternoon from Monday to Friday inclusive. An Elective Course in the treatment of fractures is offered during the Junior and Senior Surgical Quarters on Friday morning from 9:30 to 11:30. In this course the students get practical training in the application of plaster of paris casts and in the follow-up treatment of fractures. Elective courses in orthopaedic pathology, roentgenology and physiotherapy are offered to Junior and Senior students. Arrangements may be made for students who wish to do research or experimental work. At 813 Fifth Street, the orthopaedic department conducts a special clinic for the treatment of cerebral palsy. The clinic has a bed capacity of twelve and is staffed with a specially trained physiotherapist, a schoolteacher, and an administrative officer. Interested students are welcomed at any time. Students are given the opportunity of attending the North Carolina Orthopaedic Hospital Clinic at Goldsboro the third Thursday of each month. They may also attend similar clinics held in Lumberton the first Friday of each month and at Elizabeth City the last Tuesday of each month and in Tarboro the Monday before the last Tuesday of each month.

Otolaryngological Division. An introductory course of instruction in the use of otolaryngological instruments, with a review of normal anatomy, is given to second-year students in the Spring Quarter. Clinics on Fridays at 11:30 A.M. during the Spring Quarter are given to Junior and Senior students; Junior students during their obstetric quarter spend two afternoons for five and one-half weeks in the otolaryngological dispensary. There are no formal otolaryngological ward rounds, but Junior and Senior students are assigned to patients during the surgical quarter. Individual instruction is given the student by the various members of the Staff. Each quarter an elective course in ear, nose and throat is given. This course includes anatomy, physiology, diseases of ear, nose and throat,

X-ray interpretation and the use of diagnostic instruments.

Urologic Division. In the Spring Quarter, second-year students are given a course of lectures and practical demonstrations in urologic physical diagnosis in the normal individual. Ward rounds on urologic patients are given every Saturday at 8:30 A.M., throughout the year, which Junior students in their surgical quarter, and the Senior surgical group are required to attend. During each quarter, small groups are selected from the Senior surgical group of students and assigned in rotation to the urologic dispensary every afternoon. Here, under proper supervision, they study patients and give recommended treatment. During one and a third quarters of the year urologic clinics are given on Fridays at 11:30 A.M. for the Junior and Senior classes. These clinics deal with the affections of the male and female urinary tract and of the male genital tract. Clinics for urethroscopic and cystoscopic investigation and the more technical methods of urologic diagnosis and treatment are held Monday, Wednesday,

and Thursday from 1:30 to 5:00 P.M. and Tuesdays and Thursdays from 9:30 A.M. to 12:30 P.M., and from 1:00 to 5:00 P.M. throughout the year. X-ray conferences on all urologic cases are held Tuesday, Thursday, and Saturday mornings from 8:30 to 9:30 and are followed by Staff rounds. Three Senior students may select one of these cystoscopic clinics, X-ray conferences, and Staff rounds as an elective. The Urologic Journal Club meets each Monday from 4:30 to 6:30 P.M., and members of the Staff review their respectively assigned journals. Interested students are welcomed.

Neurosurgical Division. During the Autumn, Winter, Spring, and Summer Quarters, at 11:30 A.M., on every third Tuesday, neurosurgical clinics are held for Junior and Senior students, at which the general principles of neurosurgical diagnosis and treatment are discussed. During all four quarters, weekly ward rounds are held at 8:30 A.M. on Wednesdays for the Senior Surgical group. Emphasis is placed in these smaller clinics upon the recognition of neurosurgical problems, followed by observation of the operative and post-operative procedures. Weekly X-ray and pathological conferences are held, and these may be attended by interested individuals.

The Tumor Clinic of the Duke Hospital was organized in 1935 for the study and student teaching of malignant disease. It is staffed by a surgeon, radiologist, and pathologist, who attend all clinics, and consultants in the various specialties are called when a patient with a malignant tumor in their field is registered in the clinic. Students in their fourthyear surgical quarter see all cases registered in the clinic and work them up and have available for teaching not only the clinical background of the Staff but also pathological sections of tumors under the study of the pathologists. From June, 1939, to July, 1940, there were 1,125 old patients and 517 new patients seen in the Tumor Clinic.

Dentistry. Second year students, in the Spring Quarter, are instructed in the principles of dentistry.

Radiology

R. J. Reeves, Associate Professor of Radiology.

W. S. Wallace, Associate in Radiology.
J. E. Morgan, Instructor in Roentgenology and Physiology.
G. J. Baylin, Instructor in Radiology and Anatomy.
C. L. Ould, Assistant in Radiology.
J. E. Hemphill, Assistant in Radiology.

J. S. WHILDIN, Fellow in Radiation Therapy.

A course with especial reference to differential diagnosis and X-ray and radium therapy is given during the Senior surgical quarter. Instruction in radium and X-ray therapy is given the Senior students each quarter in the tumor clinic. An elective course in X-ray differential diagnosis is given to a limited number of students each quarter.

Obstetrics and Gynecology

BAYARD CARTER, Professor of Obstetrics and Gynecology. E. C. Hamblen, Associate Professor of Obstetrics and Gynecology, and Endocrinologist.

R. A. Ross, Associate Professor of Obstetrics and Gynecology.

W. L. THOMAS, JR., Assistant Professor of Obstetrics and Gynecology.

W. Z. Bradford, Assistant Professor, and Director, Charlotte Maternity Clinic. Eleanor B. Easley, Instructor in Obstetrics and Gynecology.

W. A. GRAHAM, Instructor in Obstetrics and Gynecology. R. L. Pearse, Instructor in Obstetrics and Gynecology. T. F. Adkins, Assistant in Obstetrics and Gynecology. R. N. CREADICK, Assistant in Obstetrics and Gynecology.

A. F. Lee, Assistant in Obstetrics and Gynecology.
J. A. Wilson, Assistant in Endocrine Division, Obstetrics and Gynecology. R. L. Pullen, Clinical Fellow, Endocrine Division, Obstetrics and Gynecology. W. K. CUYLER, Research Fellow, Endocrine Division, Obstetrics and Gynecology.

C. P. Jones, Bacteriologist in Obstetrics and Gynecology.

Second-year students receive seventeen hours of instruction in the fundamentals of obstetrics and gynecology during their course in physical diagnosis in the Spring Quarter. Clinics and demonstrations for Junior and Senior students are held on Saturdays at 10:30 A.M. during the Autumn, Winter, and Spring Quarters and on Mondays at 11:30 A.M. in the Summer Quarters. During one quarter of the Junior year each group of students attends ward rounds at 8:30 A.M. on Mondays, Wednesdays, and Saturdays, and the Public Dispensary at 1:30 P.M. three times weekly, except Saturdays, Sundays, and holidays for eleven weeks. They also attend an endocrine clinic once a week for eleven weeks during the Junior year. The students also spend part of each day on the wards. Senior students, during their surgical quarter, have ward rounds on obstetrics and gynecology on Saturdays at 8:30 A.M. Each Senior student, during his specialties quarter, is required to spend two weeks on service with the Outside Obstetrics Training Group at Charlotte, N. C. This group is active in the antepartum care, in the delivery of the patients, and in the postpartum care of patients registered by the Maternity Clinic of that city. The group is under the direction of a trained obstetrician.

Elective courses in the diagnosis and treatment of obstetric and gynecologic conditions are offered for Junior and Senior students.

Pediatrics

W. C. DAVISON, Professor of Pediatrics. ANGUS McBRYDE, Assistant Professor of Pediatrics. J. M. Arena, Assistant Professor of Pediatrics. J. S. Harris, Associate in Pediatrics and Biochemistry.

A. H. LONDON, JR., Instructor in Pediatrics. S. C. DEES, Instructor in Pediatrics. J. M. Martin, Instructor in Pediatrics.

H. G. Morton, Assistant in Pediatrics.
D. B. Wyvell, Assistant in Pediatrics.
MILDRED M. SHERWOOD, Supervisor in Pediatric Nursing.

LOLA E. PAGE, Supervisor of Premature Nursery.

Each second-year student receives nine hours of instruction in elementary pediatrics during the course in physical diagnosis in the Spring Quarter. Junior and Senior students, during their medical quarters, have pediatric ward rounds on Saturdays from 8:30 to 9:30 A.M. The Senior

students are divided into three groups, each of which spends one quarter in pediatrics. During this quarter, they are assigned daily as clinical clerks on the children's ward, nursery and pediatric dispensary, attend ward rounds at 8:30 A.M. on Mondays, Wednesdays, and Fridays, are instructed in the practical nursing of infants by Miss Sherwood on Mondays and Wednesdays at 9:30 A.M., and are taught the preparation of diets for infants and children by the Professor of Dietetics. Each student attends six infant feeding clinics during this quarter. On Thursdays at 11:30 A.M., the Junior and Senior students attend demonstrations at which the preclinical basis, as well as the clinical aspects, of disease are emphasized. Elective courses: Senior students may attend the feeding clinic on Tuesdays at 9:00 A.M., assist in the treatment of pediatric patients in the syphilis clinic on Thursdays at 9:00 A.M., do research work, or assist in the pediatric ward or dispensary one or more mornings per week, according to the time at their disposal.

Legal Medicine and Toxicology

J. B. Bradway, Professor of Law. T. D. Bryson, Professor of Law.

W. D. Forbus, Professor of Pathology.
D. T. Smith, Professor of Bacteriology and Associate Professor of Medicine.
H. M. Taylor, Associate Professor of Biochemistry and Toxicology.

This course embraces a discussion of the relation of physicians to legal criminal procedures, jurisdiction of the coroner and medical examiner, laws governing the dead human body, personal identity of the living and the dead, the legal autopsy, traumatic injuries and fractures, rape, abortion, asphyxial death, homicidal, suicidal, and industrial poisoning, alcoholism, the examination of blood, stains, fibers, and the detection of malingering. The course is open to Junior and Senior students, and is given in alternate years. Discussions of medico-legal problems for the House Staff and Senior students, and joint conferences of the medical and law students also are held.

Preventive Medicine and Public Health

H. W. Brown, Professor of Preventive Medicine and Public Health.
H. G. Baity, Lecturer in Public Health.
M. J. Rosenau, Lecturer in Preventive Medicine and Public Health.
J. W. R. Norton, Lecturer in Preventive Medicine and Public Health.
D. F. Milam, Associate in Preventive Medicine and Public Health.
J. H. Epperson, Instructor in Preventive Medicine and Public Health.

H. B. Gotaas, Instructor in Public Health.

W. P. RICHARDSON, Instructor in Preventive Medicine and Public Health.

Public Health and Hygiene. A lecture course is given in the second year to acquaint the students with general environmental sanitation including sewage disposal, water supplies, milk and food for rural and urban communities. Vital statistics, public health regulations, and various official public health organizations also are discussed. Exercises in the epidemiology of several diseases are introduced to give the student a

broad view of disease and its prevention. Field Demonstrations. Visits for observation and instruction are made to state, county, and city health departments, infant and school hygiene clinics, dairies, public water supplies, sewage disposal plants and industrial establishments. Seminars are held in which the students discuss the various problems encountered in their field experience. Preventive Medicine. A series of lectures and exercises is given during the Senior year to provide students with the preventive point of view in the practice of medicine. The problems of infant and maternal hygiene, occupational diseases, the deficiency states, and the etiology, transmission, epidemiology and prevention of communicable diseases are considered. Emphasis is placed upon the relationship of the private practitioner of medicine to the public health program. A Laboratory Course is given in the Autumn Quarter of the second year by the Department of Bacteriology, and consists of the identification and virulence testing of diphtheria cultures, the isolation of stool, throat and blood organisms, the practical examination of water, Schick, Dick and tuberculin tests, and vaccination against typhoid and smallpox. Elective: Through the co-operation of several city and county health officers, students may spend one or more weeks in observing and assisting in the operation of these public health units. Junior and Senior students may elect one month's Fellowship in Public Health in Michigan offered by the Kellogg Foundation, if they have permission from the head of the department of the quarter concerned and make up the time afterward.

CURRICULUM OF THE SCHOOL OF MEDICINE

The usual four medical school years of thirty-three weeks each may be condensed into three and one quarter calendar years. In the preclinical subjects three terms, and in the clinical subjects four terms, each of eleven weeks, are given during the year, and a certificate is granted after the satisfactory completion of twelve terms. These may be taken consecutively (certificate in three and one quarter years) if the student's previous work has been outstanding and if he has been given permission by the Curriculum Committee; or three terms may be taken each year (certificate in four years). Such a curriculum will affect in no way the course at any other medical school. If students who have received their first two years of training at other medical schools wish to spend their clinical years at the Duke University School of Medicine, they are eligible in October for the seventh quarter, which corresponds to the beginning of the usual Junior Class (see page 36).

Every effort is made to emphasize the close relationship of preclinical and clinical instruction. Members of the Clinical Staff assist in the teaching of preclinical subjects, and demonstrate to the students of the first two years, patients whose conditions illustrate the subjects being taught. Thus, from the student's first days, he is impressed with the interdependence of all branches of the medical science. During the sixth quarter every department of the School participates in a correlation course, which combined with the teaching of physical diagnosis, serves to give

the student just entering his clinical years a co-ordinated introduction to medicine in all its aspects. In the Junior and Senior years, preclinical instructors assist the Clinical Staff in presenting the underlying basis of disease.

Sixteen per cent of the time in this curriculum is free for elective work or anything else which the student wishes to do. No credits are given for specific courses during this free time. The opportunity merely is provided for each student, on his own initiative, to obtain the additional training which he may feel to be necessary or desirable. It is hoped that many of the students will migrate to other medical schools in this country for one quarter, a practice which is encouraged. The students also may utilize their free time in elective courses in preclinical and clinical departments and may pursue independent work in any subject or may do research work. The elective courses have been organized for small groups and will be repeated, if necessary, in one or more quarters. Students who wish to study during the Summer Quarter, either here or elsewhere, to spend one or more quarters at other medical schools or to substitute a program different from that listed below, must obtain permission, in advance, from the Curriculum Committee.

CURRICULUM OF FOUR QUARTERS OF ELEVEN WEEKS EACH

(The hours for these courses will be posted on the bulletin board.)

FIRST YEAR

AUTUMN QUARTER (1st): October 3 to December 21, 1940. Anatomy (including histology and neuro-anatomy) Biochemistry	385 Hours 44 Hours
WINTER QUARTER (2d): January 2 to March 15, 1941. Anatomy (including histology and neuro-anatomy) Biochemistry Free time	176 Hours
Spring Quarter (3d): March 24 to June 7, 1941. Physiology and pharmacology, including nutrition Free time	330 Hours 99 Hours
SECOND YEAR	
AUTUMN QUARTER (4th): October 3 to December 21, 1940. Pathology Bacteriology and Parasitology Introduction to Neuropsychiatry Free time	150 Hours
Winter Quarter (5th): January 2 to March 15, 1941. Pathology Clinical microscopy Public health and hygiene Free time	110 Hours

SPRING QUARTER (6th): March 24 to June 7, 1941. Physical diagnosis and introduction to clinical medicine
JUNIOR YEAR
SUMMER QUARTER (7th):* June 16 to August 30, 1941.
Medicine (Junior)
AUTUMN QUARTER (8th):* October 3 to December 21, 1940.
Surgery (Junior)
WINTER QUARTER (9th):* January 2 to March 15, 1941.
Obstetrics and gynecology (Junior) 220 Hours Ophthalmology and Otolaryngology 66 Hours Free time 143 Hours
SENIOR YEAR
SPRING QUARTER (10th):* March 24 to June 7, 1941.
Medicine (Senior)
SUMMER QUARTER (11th):*
June 16 to August 30, 1941. Surgery (Senior) including Urology and Orthopaedics
AUTUMN QUARTER (12th):* October 2 to December 20, 1941.
Pediatrics191 HoursMedicine82 HoursFinal clinical examinations24 HoursPreventive medicine22 HoursFree time110 Hours
SUMMARY
Total number of hours required instruction, (84%) 4,316Total number of hours of free time, (16%) 832Total number of hours in curriculum, (100%) 5,148

^{*}The clinical instruction is repeated each quarter in order to utilize all the clinical material and to have small groups of students. Consequently, students may vary the order of the seventh, eighth, and ninth quarters, and also the order of the tenth, eleventh, and twelfth quarters. Students who do not attend the Summer Quarters, have similar instruction one quarter later. The above schedule merely illustrates the program of one group.

FEES AND EXPENSES

All fees for each quarter are due and payable at the beginning of each quarter, and no student will be admitted to classes until these fees have been paid at the University Treasurer's Office. A fine of \$5.00 is charged for late registration. No credit will be given for any quarter in which the tuition of \$150 has not been paid at the Treasurer's Office, whether the work has been done here or elsewhere, except that students who have been permitted by the Curriculum Committee to spend a quarter at another medical school or hospital may subtract the amount of tuition paid at this other medical school or hospital from the \$150 due here for that quarter.

It is not advisable for a student to attempt outside work to defray his expenses; the results usually are disastrous to his health and academic

standing.

Fees and Expenses

Tuition, per quarter	3.33	
Athletic Fee, admitting students to all athletic contests held on the University campus during the quarter	5	
Room-rent, per quarter* (estimated)	50	
Board, per quarter (estimated)	75	•
Laundry, per quarter (estimated)	10 to	20
Books, per quarter (estimated)	25 to	
Commencement and Diploma Fees**		8
National Board of Medical Examiners Fees** \$25 (Part I), \$20		
(Part II)		
Microscope, ophthalmoscope, otoscope and other equipment, which		
are required of each student and which must conform to rigid		
standards, may be obtained on a rental basis from the University	20 to	30
Estimated total expenses, per month	115 to	150

ANGIER B. DUKE MEMORIAL AND OTHER LOAN FUNDS

The Angier B. Duke Memorial, Incorporated, administers through an advisory committee of the officers of the University a loan fund for students. In addition, the University administers other endowed loan funds for the benefit of students who are not financially able to meet their expenses. Medical students, after their third quarter, are eligible for loans from these sources. As the amount of money available is limited, loans are restricted to outstanding students who cannot borrow elsewhere. No scholarships are awarded in the School of Medicine. The loan funds are administered in accordance with the following regulations:

1. No loan will be made to a student who violates any of the regula-

^{*}Rooms may be reserved by medical students in Few Quadrangle. These rooms are provided with furniture, heat, electric light, and care of rooms; each student furnishes his own blankets, sheets, pillow-slips, towels, and pillows. Applications for rooms, accompanied by a reservation fee of \$25, should be made before August 1, by writing to Mr. W. E. Whitford, Duke University, Durham, N. C. This fee is deducted from the room charges for the Autumn Quarter; it is not refundable unless the request is made before August 1.

** Payable at the beginning of the quarter in which a student is eligible for a degree

tions of the University or who is not doing outstanding class work.

2. Loans will be made only to students who are taking full courses of study that lead to a degree, and all loans must be arranged not later than one week after the beginning of a quarter.

3. Every applicant for a loan must present with the application such security as the President of the University may approve, and no money will be advanced before a note with approved security is in the hands of the Treasurer of the University.

4. Interest at the rate of 6 per cent annually shall be charged for all

loans of money, and the interest must be paid annually.

5. All requests for loans must be submitted before June 1 of the preceding year.

RESEARCH FELLOWSHIPS

The Lederle Laboratories Research Fellowship, in the Department of Biochemistry, held by Dr. Hans Neurath.

The James A. Greene Brucella Research Fellowship, in the Department of Medicine, held by Dr. Bowman Wise.

The Lederle Fellowship, in the Department of Surgery, held by Dr. Alton R. Taylor.

The Ciba Pharmaceutical Products Research Fellowship in Endocrinology, held by W. Kenneth Cuyler.

The Dorothy Beard Research Fellowship, in Experimental Surgery, held by Dr. D. Gordon Sharp.

The National Cancer Institute Fellowship, in the Division of Roentgenology, held by Dr. James G. Whildin.

Research Fellowship in Endocrinology, held by Dr. Roscoe L. Pullen. The Anna H. Hanes Research Fellowship, in the Department of Medicine, held by Dr. Elijah E. Menefee, Jr.

The Robert M. Hanes Research Fellowship, in the Department of Medicine, held by Dr. William Schulze.

LIST OF SCHOOL OF MEDICINE STUDENTS

Graduates

P* 17	Second-Year	Innior-Senior	Total	1932-40
	65	131	262	374
Students 66	03	101	202	
F	IRST-YEAR	STUDENTS		
Name and Preparation	Hom	e Address	Unir	versity Address
Paul McBee Abernethy				
Fred Houdlett Albee, Jr				nouse rr.
Albert Jerviss Alter Yale University.				Dulham, IV. C.
Robert Lester Baeder Duke University.				House GG.
Albert Lawrence Banks Duke University.				House Fr.
Arthur Jay Bassell University of Virginia.				nouse rr.
Frank Cutchin Bone Duke University.				House FF.
Robert Alexander Broome Duke University.				Durham, N. C.
John Edward Cann Duke University.				House FF.
Jesse Whilden Carll, IV				House FF.
Lee Marion Cole, Jr Virginia Polytechnic Instit	ute			House GG.
William Crocket Covey, J. Duke University.	rBeck	ley, W. Va	Few	Quadrangle, House FF.
John Thomas Crowe, IV. Central College.				House FF.
George Gordon Culbreth Duke University.	New	Bern, N. C	Few	Quadrangle, House HH.
Robert Whitney Curry Duke University.	Brad	lenton, Fla	708 Bu	chanan Road, Durham, N. C.
Thomas Brantley Daniel Davidson College.	Oxfo	ord, N. C	Few	Quadrangle, House HH.
William Ralph Deaton, Jr Guilford College.	Gree	nsboro, N. C	Few	Quadrangle, House FF.
James William Dickey, Jr Georgia School of Technolo University of Michigan; Duke University.	gy;			House GG.
Charles Kondall Donogan. St. Petersburg Junior Colle Duke University.	Larg	go, Fla	Few	Quadrangle, House FF.
William McCoy Eagles	Four	ntain, N. C	Few	Quadrangle, House GG.
Elman William Entatore	т *	. D.	010	T.T1 A

No. 1 Detection	77 A J J	77
Name and Preparation John Capers Glenn, Jr Junior College of Kansas City, Mo.; Central College, Fayette, Mo.	Raleigh, N. C	Few Quadrangle, House GG.
Nathaniel Banks Glover	Newnan, Ga	Few Quadrangle, House GG.
Lawrence Ellliott Gordon, Jr Emory and Henry College; University of Virginia; Emory and Henry College.		.Few Quadrangle, House GG.
Emil Joseph Graham Brevard College; University of North Carolina; Duke University.		House HH.
Alfred Edward Gras Harvard College.	.Cambridge, Mass	Few Quadrangle, House FF.
Harold Houston Hawfield Duke University.	Willard, N. C708	Buchanan Road, Durham, N. C.
Thomas Roy Hazelrigg Montana University.	.Missoula, Mont	. Few Quadrangle, House GG.
Robert Pinckard Henderson Kalamazoo College; Western State Teachers College.	.Kalamazoo, Mich	Few Quadrangle, House GG.
Wilks Otho Hiatt, Jr Duke University; University of Virginia.	.Savannah, Ga	Few Quadrangle, House FF.
Eugene Leroy Horger, Jr Duke University.	.Columbia, S. C	. Few Quadrangle, House FF.
Robert Darley Horne	Cordele, Ga	.Few Quadrangle, House GG.
James Mayhew Ingram, Jr University of Tampa; Duke University.	.Tampa, Fla	.Few Quadrangle, House FF.
Martin Evans Jones, Jr Duke University.	.Granite Falls, N. C708	Buchanan Road, Durham, N. C.
William Edward Leeper, Jr Duke University.	.Gastonia, N. C	.Few Quadrangle, House FF.
Ralph Harold Lusher	Huntington, W. Va	.University Apts., Durham, N. C.
Francis H. McCullough, Jr	New York City	.Few Quadrangle, House GG.
Hugh Archie Matthews	Canton, N. C	.Few Quadrangle, House FF.
Richard Hoyt Mayne	.Miami, Fla	Few Quadrangle, House GG.
James Goodwin Mixson	.Tampa, Fla	
James Donaldson Moody Duke University.	East Brady, Pa	
Horace Lee Morgan Duke University; University of S. C.	Savannah, Ga	
Arthur Allen Morris, Jr Duke University.	.Winston-Salem, N. C	.Few Quadrangle, House FF.
William Henry Muller, Jr	Dillon, S. C	. Few Quadrangle, House GG.
Keith Millner Oliver	.Lynnhaven, Va	
Robert James O'Mara Duke University.	Ashland, Ky	.Few Quadrangle, House HH.

Name and Preparation Home Address University Address
Clarence Eugene PeerySprigg, W. VaFew Quadrangle, Emory and Henry College. House GG.
Victor Anthony Politano Point Marion, Pa University Apts., Marshall College. Durham, N. C.
Raymond Crawford Ramage Jacksonville, FlaFew Quadrangle, University of Florida. House GG.
John Garnett RamsbottomSpartanburg, S. CFew Quadrangle, Wofford College. House GG.
Bernard Leonidas Rhodes, JrLive Oak, FlaFew Quadrangle, Marion Military Institute; Duke University.
Millard McAdoo Riggs
Stanfield Rogers
Otho Bescent Ross, Jr
Richard Allan RuskinNew Rochelle, N. YFew Quadrangle, Duke University. House FF.
Robert Emmet Seibels, JrColumbia, S. CFew Quadrangle, University of the South. House GG.
William Vance SingletaryGreensboro, N. CFew Quadrangle, University of North Carolina. House GG.
George Washington Freeman
Singleton
Milton Crego SmithAnn Arbor, MichUniversity Apts University of Michigan. Durham, N. C.
Harry Francis SteelmanHickory, N. CFew Quadrangle, Lenoir Rhyne College. House GG.
George Edward ThurmanBronxville, N. YFew Quadrangle, Princeton University. House GG.
Walter Brown WatsonBelleville, N. JFew Quadrangle,
Donald Palmer White, JrPotsdam, N. Y626 Swift Ave St. Lawrence University; Durham, N. C. University of Alabama.
Margaret Wilson
Robert Walker Withers, IVTampa, FlaFew Quadrangle, University of Florida.
SECOND-YEAR STUDENTS
Ralph Parr BakerNewberry, N. C1601 University Road. Washington and Lee University.
Donald Gibson Bard, Jr Pleasantville, N. Y Few Quadrangle, Duke University. House GG.
John Lee BarrettGrosse Point, MichFew Quadrangle, Duke University; House GG. University of Michigan.
Stephen Russell Bartlett, Jr Hingham, Mass Few Quadrangle, Trinity College (Hartford, Conn.)
Charles Leonard BensonTamaqua, PaFew Quadrangle, Muhlenberg College; House GG. Duke University.
Gustave Francis BieberSouth River, N. J2121 W. Pettigrew St., Rutgers University. Durham, N. C.
George Orion BoucherSalt Lake City, Utah808 Fifth St., University of California. Durham, N. C.

Name and Preparation Home Address University Address Clyde Owens BrindleyTemple, TexasFew Quadrangle,
University of Texas. Norris Mervin Burleson
Duke University. John Sinclair CampbellManistee, MichFew Quadrangle, Huisersity of Michigan
University of Michigan. House GG. Robert Monroe CampbellNeosho, MoDuke University Road, Central College. Durham, N. C.
Leffie Mahon Carlton, JrWauchula, FlaFew Quadrangle, John B. Stetson University; House FF. Duke University.
George Judson Cooper, JrDetroit, MichFew Quadrangle, Albion College; Stanford University; Wayne University.
Archibald Nail DawsonLakewood, OhioDuke University Road, Duke University. Durham, N. C.
Lucy Jane GregoryRocky Mount, N. CFaculty Apts302, Sweet Briar College. Durham, N. C.
Eugene Russell GriffithCrowley, ColoFew Quadrangle, Colorado University; Colorado College.
Matthew Hill GrimmettMcMinnville, TennFew Quadrangle, Vanderbilt University.
Walter Gordon Hackett
Harold E. Harvey
Watkins Proctor HarveyLynchburg, VaFew Quadrangle, Lynchburg College. House GG.
Eleanor Jane HerringRoseboro, N. CFaculty Apts302, Greensboro College; Guilford College. Durham, N. C.
William Samuel HootenLynchburg, VaFew Quadrangle, Lynchburg College. House GG.
Henry Lee HowardSavannah, GaFew Quadrangle, Duke University; House GG. University of South Carolina.
John Howard
Carter Wyckoff HowellGrinnell, IowaFew Quadrangle, Harvard University; Knox College.
Roy Mason KashOmer, KyFew Quadrangle, Sterling College. House GG.
Anthony Vanderbilt KeesePasadena, CalifUniversity Apts., Stanford University. Durham, N. C.
Andrew Antonious KerhulasUnion, S. C208 Buchanan Road, Wofford College. Durham, N. C.
Samuel Rea KilgoreWoodruff, S. CFew Quadrangle, The Citadel. House GG.
Herbert Arthur KingPeabody, MassFew Quadrangle, University of Richmond. House GG.
John Albert Kneipp
Lemuel Weyher Kornegay, JrRocky Mount, N. CFew Quadrangle, Davidson College. House FF.
Edward David Levy West Hartford, Conn1010 Carolina Ave., Harvard College; Durham, N. C. Duke University.

	sity Address
David Jay McCulloch	
Paul Robinson Massengill	
Harry Stoll Mustard, Jr	rwin Road, irham, N. C.
Beatrice Hart Nahigian Durham, N. C	rham, N. C.
Jack Harrell NeeseReidsville. N. CFew Q	House GG.
William Irvin Neikirk	House FF.
Arthur Francis O'KeeffeMilton, MassUniver	rsity Apts., irham, N. C.
John Frederick Ott	Quadrangle, House HH.
John Dickinson Peck, IrSummersville, W. VaUniver	rsity Apts., irham, N. C.
Maxine Roberta PerdueCanton, OhioFaculty	Apts115, urham, N. C.
William Anthony Peters, JrElizabeth City, N. CFew Q	Quadrangle, House FF.
	irham, N. C.
Frank Earl Poole	Quadrangle, House GG.
Norman Wesley RauschMaplewood, N. JFew (Western Maryland College; Duke University.	Quadrangle, House FF.
John Andrews RitchieHardware, VaFew (Hampden-Sydney College; University of Virginia.	House HH.
Benjamin Franklin RoachMidway, KyFew (Quadrangle, House GG.
Harold Francis RomaBrooklyn, N. YFew (St. John's Univ. Coll. of Pharmacy; Manhattan College.	Quadrangle, House FF.
Robert Franklin RuffJeannette, PaUniver	rsity Apts., urham, N. C.
John Greaton SellersNorfolk, VaFew (William and Mary College; Duke University.	Quadrangle, House GG.
Alfred Siege	rinity Ave., urham, N. C.
Richard Hopkins Sinden Dunedin, FlaFew (University of Florida.	
Walter Spaeth, JrSouthern Pines, N. CUnive	ersity Apts., urham, N. C.
Harlan Aljean Stiles	rsity Apts., urham, N. C.
Eric Donald ThompsonMontclair, N. JFew (Duke University; Harvard College.	
Kearns Reid Thompson, JrReidsville, N. CFew (Duke University.	Quadrangle, House FF.
Thomas Carter Van ArsdallHarrodsburg, KyFew (University of Michigan.	

Name and Preparation Home Address Robert James VanderlindeRochester, N. YFew Quadrangle, Duke University. House GG. Garland Odell WellmanKenova, W. VaUniversity Apts.,
Marshall College. Durham, N. C.
William Harrison Williams, Jr Charlotte, N. C Few Quadrangle, Wake Forest College. House GG.
John McLean Wilson Darlington, S. CFew Quadrangle, The Citadel. House GG.
Marshall Wayne WoodardAsheville, N. CUniversity Apts., Mars Hill College; Duke University.
Cabell Young, Jr
JUNIOR-SENIOR STUDENTS
Ellis Wentworth Adams (6/2/41)*
Richard Haight Ames (12/21/40) Onancock, Va University Apts., Haverford College. Durham, N. C.
Kenward Oliver Babcock (12/21/40) Ontario, Calif Few Quadrangle, San Mateo Junior College; House FF. Stanford University.
William Edwin Baldwin, Jr. (6/8/42)
Gareth Bonsack Barnes (12/21/40) Elgin, Ill Few Quadrangle, Antioch College; House GG. Bridgewater College.
Ralph Etheridge Baum (6/2/41)Kitty Hawk, N. CFew Quadrangle, *Duke University.* House FF.
Steven I. Bednarz (6/2/41)Wallington, N. J2121 W. Pettigrew St., Rutgers University. Durham, N. C.
Edward Perry Benbow, Jr. (12/21/40)
Emil Charles Beyer (6/2/41)White Plains, N. YFew Quadrangle, Duke University.
Boyd Black (6/8/42)Mather, PaFew Quadrangle, Waynesburg College. House GG.
Albert Henry Bremer, Jr. (6/8/42)
Edwin Wells Brown (6/2/41)Asheville, N. CFew Quadrangle, Biltmore College; House GG.
James Walter Brown, Jr. (3/15/41)
Kenneth Brien Brown (6/2/41)Montclair, N. JFew Quadrangle, Franklin and Marshall College. House FF.
* The date in parentheses after a name indicates the time of completion of the medical course.

Name and Preparation	Home Address	University Address
Iverson Oakley Brownell (3/14/42) Washington State College.	Pasco, Wash	Few Quadrangle, Durham, N. C.
William Keefer Brumbach (3/15/41) Duke University.	Belleville, N. J	1515 W. Pettigrew St., Durham, N. C.
Walter Ellis Bryant (12/20/41 College of Charleston; Newberry College.)Darlington, S. C	2412 Club Blvd., Durham, N. C.
Merwin Elliott Buchwald (12/20/41) Washington and Lee University.	Brooklyn, N. Y	University Apts., Durham, N. C.
George William Burch (6/8/42 University of Florida.	!)Fort Lauderdale, Fla.	Few Quadrangle, House GG.
Woodrow William Burgess (3/15/41)	Royal Oak, Mich	1609 Lakewood Ave., Durham, N. C.
Clarence Cooper Butler (12/20/41) Vanderbilt University.	Columbus, Ga	208 Buchanan Road, Durham, N. C.
John Robert Clark, Jr. (6/8/42 Randolph-Macon College.)Stuart, Va	House FF.
Charles Stafford Clay (6/2/41 Duke University; University of Alabama Medical S		818 Third St., Durham, N. C.
Joseph Henry Cutchin, Jr. (6/8/42)	Whitakers, N. C	Few Quadrangle, House FF.
Roy David Daniel (6/8/42) Florida Southern College; University of Florida.		
Joseph Kalil David, Jr. (6/2/41 University of Florida.)Jacksonville, Fla	Few Quadrangle, House FF.
William Arthur Dinsmore (12/20/41)	Heilwood, Pa	500 Watts St., Durham, N. C.
J. Harold Donaldson, Jr. (3/15/41) Marshall College.		
Hartwell Price Edwards (6/8/42)	Spartanburg, S. C	208 Buchanan Road, Durham, N. C.
John Robert Egan (12/20/41). Harvard College.	Washington, D. C	Few Quadrangle, House FF.
Frederick Duncan Elliott (6/2/41) Dickinson College.	Cloudersport, Pa	508 Buchanan Road, Durham, N. C.
William Allen Exum (6/2/41) Davidson College; Duke University.	Snow Hill, N. C	Few Quadrangle, House FF.
John Mellichamp Fearing (6/8/42) College of Charleston; University of North Carolina.	Charleston, S. C	University Apts., Durham, N. C.
Arthur Howard Flower, Jr. (6/8/42)	Dayton, Ohio	Few Quadrangle, House GG.

^{*} The date in parentheses after a name indicates the time of completion of the medical course.

Joseph Armistead Ford, Jr. (6/8/42)
D 4 D D 4 (10/04/40) D 1 - 37 37 4044 7 4 4
Paul T. Forth (12/21/40)Rochester, N. Y1011 Lamond Ave., University of Michigan. Durham, N. C.
Elmer Thomas Gale (6/8/42)Clinton, N. CUniversity Apts., Duke University. Durham, N. C.
James S. Gilliam, Jr. (6/2/41) Elon College, N. C901 Fifth St., University of North Carolina. Durham, N. C.
Stephen Arnold Ginn (12/21/40). Royston, GaFew Quadrangle, Duke University.
Henry Boone Grant (12/21/40)Garysburg, N. CFew Quadrangle, University of North Carolina.
Briant Bowman Guerin (6/2/41) Mendham, N. J
Joe Frank Harris (6/8/42)Raleigh, N. CFew Quadrangle, Duke University. House FF.
Hubert B. Haywood, Jr. (3/15/41)
John Roy Hege, Jr. (3/14/42)Winston-Salem, N. CFew Quadrangle, Salem College; Duke University.
Donald Vincent Hirst (6/2/41)Durham, N. C1507 University Road, Duke University.
Charles William Hock (6/2/41)Bluefield, W. VaFew Quadrangle, Bluefield College; House FF.
Stephen Francis Horne (12/20/41)
William Nolen Horsley (3/15/41)Belmont, N. CFew Quadrangle, Duke University. House FF.
Richard Carroll Irving (6/2/41)Conneaut, Ohio
Frank Randolph Johnston (6/8/42)
Presbytérian College. Stanley Karansky (6/2/41)Brooklyn, N. YFew Quadrangle, Columbia University. House GG.
William Hummel Karmany
(6/2/41)
Herbert David Kerman (12/20/41)
Charles Edward Kernodle, Jr. (6/8/42)
John Robert Kernodle (12/20/41)
John Franklin Kincaid, Jr. (6/8/42) Leesburg, Va208 Buchanan Road, Hampden-Sydney College. Durham, N. C.

^{*} The date in parentheses after a name indicates the time of completion of the medical course.

Name and Preparation	Home Address	University Address
William Baugher Kintzing (12/21/40)		Durnam, N. C.
Glen Augustus Kiser (6/2/41). University of North Carolina.		House FF.
Frank R. Ledesma-Diaz (6/8/- The Catholic University of Ame	rica.	House FF.
Julian Carr Lentz, Jr. (6/8/4. Duke University.		Durham, N. C.
James William Littler (6/8/4). Duke University.	2)Manlius, N. Y	Few Quadrangle, House GG.
Rudolph Powers McCulloch (12/20/41)	Ypsilanti, Mich	1014 Lamond Ave., Durham, N. C.
Oscar Lee McFadyen, Jr. (12/21/40)		Few Quadrangle, House FF.
William Campbell McLain, Jr. (6/8/42)	Columbia, S. C	
Brita Rosenqvist McLean (6/8/42)	Oakmont, Pa	905 Sixth St., Durham, N. C.
I. William McLean, Jr. (6/8/4) Davidson College.	42). Kingston, Jamaica,	
Frank Rambo Mann (6/2/41) University of Georgia.	McRae, Ga	Duke University, House GG.
Archibald Graham McIlwaine Martin, III (12/21/40) Randolph-Macon College; North Carolina State College; University of North Carolina.	Suffolk, Va	Durham, N. C.
Theo Howell Mees (3/14/42) Capital University; University of Maryland.	Chevy Chase, D. C.	University Apts., Durham, N. C.
University of Maryland. Addison Lee Messer (12/21/40 University of Florida.	0)Tallahassee, Fla	
Muriel Meyers $(6/2/41)$ Hood College.	Pittsburgh, Pa	1508 Alabama Ave., Durham, N. C.
Leon Howard Mims, Jr. (12/21/40) The Citadel; University of South Carolina.	Florence, S. C	Few Quadrangle, House FF.
David DeLeon Moise (6/8/42) University of Maryland; Duke University.)Sumter, S. C	Few Quadrangle, House GG.
Frank Theodore Moran	Jersey City, N. J	208 Buchanan Road, Durham, N. C.
Edwin Hastings Mulford, II		
(12/21/40)		House GG.
Jesse Phillip Muse (6/2/41)		House CC
Robert Gleve Neill (12/21/40) Bakersfield Junior College; University of California.	Bakersfield, Calif	802 Burch Ave., Durham, N. C.

^{*} The date in parentheses after a name indicates the time of completion of the medical course.

Name and Preparation	Home Address	University Address
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Duke University. Earl Andrew O'Neill (6/8/42) Springfield College.)Plainfield, N. J	Few Quadrangle, House GG.
Olin Charles Perryman, Jr. (12/21/40)	Winston-Salem, N	. CFew Quadrangle, House FF.
Arnold Zachary Pfeffer (6/2/4 City College of New York; University of Maryland.	41). New York City	2110 Erwin Road, Durham, N. C.
Kenneth Arthur Podger (12/21/40)	Kenmore, N. Y	Few Quadrangle, House FF.
Millard Pinson Quillian (6/2/4 University of Florida; Western State Teachers College	41).Bradenton, Fla	1515 W. Pettigrew St., Durham, N. C.
Charles Hamilton Reid, Jr. (6/8/42)		
Frank Newell Reimer (3/14/4. Long Beach Junior College; Stanford University.	2)Long Beach, Calif	University Apts., Durham, N. C.
James Franklin Reinhardt (12/20/41) Davidson College.	Lincolnton, N. C	University Apts., Durham, N. C.
Mila Elisabeth Rindge (12/21/40) Connecticut College for Women.	Madison, Conn	1417 W. Pettigrew St., Durham, N. C.
Vanderbilt University.		
Luther John Roberts, Jr. 6/8/42)	Newnan, Ga	Few Quadrangle, House GG.
James Forbes Rogers (6/8/42) Duke University.		N. JFew Quadrangle, House FF.
Max Pritchard Rogers (6/8/4 High Point College.	42).Burlington, N. C	
Eric Dutton Savage (3/15/41) Harvard University.)New York City	
John Green Scott, Jr. (6/2/41) Duke University; University of Pittsburgh.)Tamqua, Pa	
William Harrison Sellers	Anniston, Ala	
Gardner Ford Smart (12/21/4 Duke University.	40).Troy, Ala	1022 Trinity Ave., Durham, N. C.
William Crenshaw Smith (6/8/42) Randolph-Macon College.	Creeds, Va	Few Quadrangle, House FF.
Paul DeLaine Snedegar (6/2/41) Davis and Elkins College; University of Michigan.	Elkins, W. Va	University Apts., Durham, N. C.
- Thiersity of Michigan.		

^{*} The date in parentheses after a name indicates the time of completion of the medical course.

Name and Preparation 'Home Address University Address Richard Dean Snipes (6/8/42)Hamlet, N. CFew Quadrangle, University of North Carolina. House GG.
David Rodney Stack, Jr. (6/2/41)
Helen Starke (6/8/42) Ridgewood, N. J1417 W. Pettigrew St., Duke University.
Charles Clarence Stauffer (6/2/41)
Gordon Conover Stenhouse (3/15/41)
John Thomas Stone (12/20/41)Greenwood, S. CFew Quadrangle, The Citadel. House GG.
William Conrad Stone (6/8/42) Roanoke, VaFew Quadrangle, Hampdon-Sydney College. House GG.
John Mather Street (12/20/41) Manzanillo, Cuba208 Buchanan Road, Yale University. Durham, N. C.
Archie Reid Sutherland (6/8/42). Sparta, IllFew Quadrangle, Duke University; House GG. Emory and Henry College.
George Foster Sutherland (6/8/42) Grundy, Va Few Quadrangle, Duke University; Duke University Graduate School.
Richard McCulloch Taliaferro (3/15/41)
Ralph Gordon Templeton (6/8/42) China Grove, N. C906 Monmouth Ave., University of North Carolina. Durham, N. C.
Andrew Henry Thomas (6/8/42). New Britain, Conn Few Quadrangle, Roanoke College. House GG.
William Gilmore Thompson (12/21/40) Portland, Maine Glenn Apts., Duke University. Durham, N. C.
George Tudor Thornhill, Jr. (6/2/41)
Raymond Perle Thornhill (6/2/41) Kellogg, Idaho. Few Quadrangle, University of Idaho. House GG.
Harold Bushman Thurston (6/8/42)Martinsburg, W. VaFew Quadrangle, Duke University. House FF.
Lloyd Flintom Timberlake (6/2/41)
James McKnight TimmonsColumbia, S. CFew Quadrangle, Duke University; House FF. University of South Carolina.
Philip Cocke Trout (6/2/41)Roanoke, Va500 Watts St., University of Virginia. Durham, N. C.
Henry Lewis Valk (12/20/41) Winston-Salem, N. C Erwin Apts., University of North Carolina; Durham, N. C. University of Pennsylvania.

^{*} The date in parentheses after a name indicates the time of completion of the medical course.

Name and Preparation	Home Address	University Address		
Harry Noble Vandegrift, Jr. (6/8/42)				
University of Delaware. Harold Diederich von Glahn (6/8/42)	Brooklyn, N. Y	Few Quadrangle,		
Duke University. Louis Charles Waller (6/8/42). Pennsylvania State College.	Nanticoke, Pa	House FFUniversity Apts.,		
Don James Weekes (6/2/41) Fresno State Teachers College; Stanford University.	Fresno, Calif	2507 Chapel Hill Road, Durham, N. C.		
Theodore Willard Weeks, Jr. (6/8/42)	Moore Haven, Fla	Few Quadrangle, House GG.		
Richard Bidgood Whitaker, Jr. (12/21/40)				
Walter F. Whitt, Jr. (6/8/42) Catawba College.		House FF.		
Walter LeRoy Widmark (12/21/40) Duke University.	Verona, N. J	1515 W. Pettigrew St., Durham, N. C.		
Prentiss Willson, Jr. (12/21/40 George Washington University; Pennsylvania State College.). Washington, D. C	1006 Shepherd St., Durham, N. C.		
George Ashby Winstead (6/2/41 Wake Forest College.).Rocky Mount, N.	CFew Quadrangle, House FF.		
Charles Kenneth Wintrup 3/14/42) University of Pennsylvania; University of Delaware.	Wilmington, Del.	2109 Chapel Hill Road, Durham, N. C.		
Harry Clyde Wortman, Jr. (6/8/42)	Belleville, N. J	Few Quadrangle, House GG.		
William Armand Wulfman Marshall College.	Huntington, W. V	aFew Quadrangle, House FF.		
INSTITUTIONS AT WHICH THE MEDICAL STUDENTS RECEIVED PART OR ALL OF THEIR PREPARATION				
Alabama Polytechnic Institute Alabama, University of Albion College Antioch College Arizona, University of Bluefield College Bridgewater College California State Teachers Colleg California, University of California, University of, at Los Angeles Capital University Catawba College Catholic University of America. Central College Citadel, The	1 Colorado Colorado, I Colorado, I College of Colorado, I Columbia Colorado, I Colorado, I Colorado, I Colorado, I Connecticut e. 1 Connecticut e. 1 Delaware, I De Pauw I 1 Dickinson Colorado 1 Duke University 1 Edon Colleg 3 Emory and	e of New York		

^{*} The date in parentheses after a name indicates the time of completion of the medical course.

Florida, University of	9 1 1 1	North Carolina, University of Oklahoma, University of Pennsylvania State College Pennsylvania, University of Pittsburgh, University of	15 1 2 4 1
Georgia Military Academy Georgia School of Technology Georgia, University of Gettysburg College Greensboro College	1 1 3 1 1	Presbyterian Junior College Princeton University Randolph-Macon College Richmond, University of	2 1 3 1
Guilford College Hampden-Sydney College Harvard College Haverford College	3 9 1	Roanoke College	1 4 1 2 2
Heidelberg College High Point College Hood College Iowa, State University of John B. Stetson University	1 1 1 1	Salem College San Diego State College South Carolina, University of Springfield College Stanford University	1 6 1 6
Johns Hopkins University Kalamazoo College Kansas City, Junior College of Knox College Lenoir Rhyne College	3 1 1 1 2	Sterling College Swarthmore College Sweet Briar College Tennessee, University of	1 1 1 1
Lynchburg College Lynchburg College Manhattan College Marion Institute	3 1 1 1	Texas, University of	1 1 5 2 3 7
Marshall College Mars Hill College Maryland, University of Michigan State College Michigan, University of	6 2 2 2 7	Virginia Polytechnic Institute Virginia, University of Wake Forest College Washington and Lee University. Washington State College	3 7 4 3 2
Montana, State University of Muhlenberg College Muskingum College	1 2 1 1	Wayne University	1 1 2 1
New Hampshire, University of New York University North Carolina State College	2 1 3	Williams Junior College	1 5 3
		CAL STUDENTS WERE BORN	
Alabama Arizona Arkansas California Colorado Connecticut Delaware District of Columbia Florida Georgia Illinois Kentucky Iowa	5 2 2 4 1 4 3 6 8 13 7 4 2	Missouri Montana New Jersey New York North Carolina Ohio Oklahoma Oregon Pennsylvania South Carolina Tennessee Texas Virginia	3 16 16 47 9 1 2 14 25 3 1
Maine Maryland Massachusetts Michigan Minnesota	1 6 7 7 2	Washington West Virginia Panama Puerto Rico	4

Foreign Countries

Canada	l	2	Cuba	1
China		1	Sweden	1

GRADUATES*

Gerald Lyon Ackerman (Mich.), Washington and Jefferson, West Virginia; med. stud., latter, 1929-31; M.D., Duke (3/22/33); Int., Ass't. Res. and Res. in Surg., Church Home and Infirmary, Baltimore, Md., 7/1/33-6/30/37;

Present address (in practice; S), Saginaw, Mich.
Carlton Noble Adams (N. C.), Wake Forest; med. stud., ibid., 1928-30; M.D.,
Duke (3/19/32); Int., Ass't. Res. and Res. in Surg., Church Home and Infirmary, Baltimore, Md., 7/1/32-6/30/36; present address (in practice; G),

Winston-Salem, N. C.

Winston-Salem, N. C.
Felix M. Adams, Jr. (Okla.), Kemper Military, Okla. Agri. & Mch.; M.D., Duke (6/5/39); Int., rotat., St. Joseph's Hospital, Victoria, British Columbia, 7/1/39-6/30/40, and in Surg., Duke Hospital, 7/1/40—
Raymond DeLacey Adams (Ore.), Oregon; M.D., Duke (12/19/36); Int. and Ass't. Res. in Med., Duke Hospital, 7/1/37-6/30/38; Res. in Neurol., 8/1/38-7/31/39, and Ass't. in Psych., Fellow of Rockefeller Foundation, Massachusetts General Hospital and Harvard Medical School, 8/1/39-7/31/40; Fellow in Psych., Yale University School of Medicine, 8/1/40—
Trogler Francis Adkins (N. C.), North Carolina; M.D., Duke (12/19/36); Int. in Surg. and Int. and Ass't. Res. in Obs. and Gyn. Duke Hospital

Int. in Surg. and Int. and Ass't. Res. in Obs. and Gyn., Duke Hospital, 1/1/37—

Francis William Alter, Jr. (Ohio), Yale; M.D., Duke (6/7/37); Voluntary Ass't. in Infectious Diseases, St. Bartholomew's Hospital and National Hospital, London, England, 7/15-12/15-37; Int. in Ped., 1/1/38-6/30/39, and in Otolaryn., Presbyterian Hospital, New York City, 7/1/39—
Robert Leonhardt Alter (Ohio), Dartmouth, Toledo, Ohio; M.D., Duke (9/4/37); Int. in Obs., Baltimore City Hospitals, 9/1/38-6/30/39; Int. in

Obs. & Gyn., Duke Hospital, 7/1/39—
Norman LaRue Anderson (N. C.), Duke; M.D., ibid. (12/16/39); Int. in Med., University of Chicago Clinics, 1/1-12/31/40; Ass't. Res. in En-

docrinol., Duke Hospital, 1/1/41—
Lacy Allen Andrew, Jr. (N. C.), North Carolina; med. stud., ibid., 1928-30; M.D., Duke (6/11/32); Int., Baltimore City Hospitals, 7/1/32-6/30/33, and Watts Hospital, Durham, N. C., 7/1/33-6/30/34; present address (in practice; U), Durham, N. C.

Frederick Henry Andrus (N. J.), Akron, Duke; M.D., Duke (12/16/39); Int., rotat., Baltimore City Hospitals, 1/1-6/30/40, and University of Kansas

Hospitals, 7/1/40-

Jay Morris Arena (W. Va.), West Virginia; med. stud., ibid., 1928-30; M.D., Duke (3/19/32); Int. in Ped., Strong Memorial Hospital, Rochester, N. Y., 3/22-6/30/32, and Johns Hopkins Hospital, 7/1/33-6/30/35; Inst., Assoc. and Ass't. Prof. of Ped., Duke University School of Medicine, 7/1/35—, and in practice; Pd, Durham, N. C.

Gordon Joseph Axelson (III.), Northwestern, Virginia; M.D., Duke (3/20/37); Int., City of Chicago Municipal Tuberculosis Sanatorium, 5/1-5/31/37; Int., rotat., and Ass't. Res. in Med., Henry Ford Hospital, Detroit, 7/1/37-6/30/39; Ass't. Res. in Endocrinol., Duke Hospital, 9/1/39-10/31/40; Junior Phys., State Colony for Epileptics and Feebleminded, Colony, Va., 11/1/40-

*The institutions at which each student received his premedical preparation are shown in italics. The date in parentheses after Duke indicates the time of the completion of the medical course and the letter, A = Army, Anat = Anatomy, Bact = Bacteriology, D = Dermatology, G = General practice, GI = Gastro-enterology, Ho = Hospital Administration, I = Internal Medicine, IndS = Industrial Surgery or Medicine, Mi = Missionary, N = Neurology, Na = Navy, OALR = Ophthalmology and Otolaryngology, Obgettrics and Gynecology, Oph = Ophthalmology, Or = Orthopaedics, P = Psychiatry, Path = Pathology, Pd = Pediatrics, PH = Public Health, Pharm = Pharmacology, R = Radiology, S = Surgery, T = Tuberculosis, U = Urology, V = Veterans Administration. The state in parenthesis is the graduate's home state.

Maynard Backer Badanes (N. Y.), Johns Hopkins; M.D., Duke (9/5/36); Int. in Ped., Duke Hospital, 9/6-12/31/36; Int., rotat., Sydenham Hospital, New York City 1/1/37-12/31/38; present address (in practice; G), Flushing, Long Island, N. Y.

Waldo Otis Badgley (Mich.), General Motors Institute, Michigan State; M.D., Duke (12/16/39); Int., Rocky Mount Sanatorium, Rocky Mount, N. C.,

1/1-6/30/40, and in Surg., Duke Hospital, 7/1/40-

Fred Nelson Baeder (N. J.), Duke; M.D., ibid. (6/3/40); Int., rotat., Macon Hospital, Macon, Ga., 7/1/40—

George James Baer (Pa.), Duke; M.D., ibid. (9/4/37); Int. in Med., Henry Ford Hospital, Detroit, 9/1/37-8/1/38; Int. in Orth., Johns Hopkins Hospital, Detroit, 9/1/37-8/1/38; Int. in Orth., Johns Hopkins Hospital, Detroit, 9/1/37-8/1/39 pital, 9/1/38-6/30/39; Ass't. Res. in Med., Baltimore City Hospitals, 7/1/39-6/30/40; Res. in Orth. Surg., Robert Breck Brigham Hospital, Boston, Mass., 7/1/40—

John Samuel Baker (Calif.), Southern California; M.D., Duke (9/1/34); Int. in Med., Duke Hospital, 9/1/34-8/31/35; Res. in Med., San Diego County Hospital, San Diego, Calif., 1/16-6/30/36; Res. of Clinics, Riverside Co. Hospital, Riverside, Calif., 9/1/36-12/31/37; Res., Outside Obstetrics Service,

Los Angeles Co. Hospital, Los Angeles, Calif., 1/6/38-8/31/38; present address (in practice; G), 826 S. Hobert St., Los Angeles, Calif. Lenox Dial Baker (Tex.), Tennessee, North Carolina; M.D., Duke (12/19/33); Int. in Surg. and Ass't. Res. and Res. in Ortho., Johns Hopkins Hospital, 1/1/34-8/31/37; Inst. in Ortho., Duke University School of Medicine,

9/1/37-

Elizabeth Mary Balas (Pa.), Pittsburgh; M.D., Duke (6/6/38); Int. in Path., Duke Hospital, 7/1/38-6/30/39, and rotat., Baltimore City Hospitals, 7/1-12/31/39; Int., rotat., and Res. in Path., Charity Hospital, New Orleans,

La., 1/1/40-

La., 171/40—Sherwood W. Barefoot (N. C.), North Carolina; med. stud., ibid., 1934-36; M.D., Duke (3/19/38); Int. and Ass't. Res. in Med., Duke Hospital, 3/20/38-11/30/39; Physician, Research Clinic, Banner Elk, N. C., 12/1-12/31/39; Fellow in Derm. & Syphilol., Duke Hospital, 1/1-7/31/40, and on Chest Service, Bellevue Hospital, New York City, 9/1/40—Oliver Jerome Bateman, Jr. (Ga.), Duke; M.D., ibid., (12/16/39); Int., Macon Hospital, Moscon Co. 1/16/30/40, and Private Med. Serve, Johns Hospins

Hospital, Macon, Ga., 1/1-6/30/40, and Private Med. Serv., Johns Hopkins

Hospital, 7/1/40-

George Jay Baylin (Md.), Johns Hopkins; M.D., Duke (3/20/37); Ass't in Anat., Duke Medical School, 4/1-6/30/37; Int. in Surg., Sinai Hospital, Baltimore, 7/1/37-6/30/38; Voluntary Ass't. in Path., Guy Hospital, London, England, 9/1/38-1/26/39; Instr. in Anat., Duke Medical School, 2/1/39—, Ass't. Res. and Res. in Radiology, Duke Hospital, 7/1/39—

Courtlandt Dixon Berry (N. J.), Wesleyan; M.D., Duke (6/6/38); Int., rotating, Orange Memorial Hospital, Orange, N. J., 7/1/38-6/30/39, and in

Obs. & Gyn., Duke Hospital, 7/1/39-

Robert Martin Biddle (W. Va.), Northwestern, Duke; M.D., Duke (6/5/39); Int., rotat., Union Memorial Hospital, Baltimore, 7/1/39-6/30/40, and in

Med., Duke Hospital, 7/1/40-

Bradford Bissell (N. Y.), Cornell, North Carolina; M.D., Duke (12/19/36); Int. in Med. and Ass't. House Physician, 1/1-12/31/37; Int. in Surg. and House Physician. The French Hospital, New York City, 4/1/38-3/31/40; Instr. in Prev. Med. & Hyg., Med. Adviser and Assoc. Attending at the Infirm., Cornell Univ., Ithaca, N. Y., 7/1/40—

John Riley Black (S. C.), Duke; M.D., ibid. (6/6/38); Int. in Ped. and Obs., Duke Hospital, 7/1/38-6/30/39; Ass't. Res., Sydenham Hospital, Baltimore, Md., 7/1/39-2/27/40; present address, Bamberg, S. C.

John Valentine Blady (Wisc.), Wisconsin; med. stud., ibid., 1926-27, 1928-29; M.D., Duke (3/19/32); Int. in Surg., Duke Hospital, 7/1/32-6/30/33; Ass't. Res., Res. and Inst. in Roent., Temple University Hospital, Philadel-

^{*} See footnote, p. 69.

phia, 7/1/33-12/31/35; Int. in Roent., Clin. Fellow and Res. Surgeon, Memorial Hospital, New York City, 1/1/36-6/30/39; present address (in practice; R), 3213 N. Seventeenth St., Philadelphia, Pa.

Berget Henri Blocksom, Jr. (Ind.), Indiana, Michigan; M.D., Duke (9/2/33); Int. in Surg., Duke Hospital, 9/3/33-6/30/34; Ass't. Res. and Res. in Urol., Univ. of Chicago Clinics, 7/1/34-6/30/37; in practice, Rockford, Ill., 7/1/37-6/30/40; Walter Reed Hospital, Washington, D. C., 7/1/40—
George McClintock Bogardus (Wash.), Washington; M.D., Duke (6/6/38); Int. in Surg., Duke Hospital, 6/7-6/30/38; Int., Mount Morris Tbc. Hospital, Mount Morris, N. Y., 10/1-11/30/38; Int. in Med., 1/1-12/31/39, and in Surg., University of Chicago Clinics, 1/1-6/30/40, and in Path., Cleveland Hospital, 7/1/40—
Lulius Bojarsky (W. Va.) West Virginia, Ohio States, med. stud., former, 1021

Julius Boiarsky (W. Va.), West Virginia, Ohio State; med. stud., former, 1931-33; M.D., Duke (6/8/35); Int., rotat., Deaconess Hospital, Cincinnati, O., 7/1/35-6/30/36; Ass't. Res. in Ortho. Surg., Charleston General Hospital, Charleston, West Va., 7/1/36-6/30/37; present address (in practice; G), Boiarsky Hospital, Charleston, West Va.

William Hegley Bonser (Ohio), Yale; M.D., Duke (12/16/39); Int., rotat.,

Lucas County Hospital, Toledo, O., 1/1/40-

Lucas County Hospital, Toledo, O., 1/1/40—
Ned Ornell Bowman (Ky.), North Carolina; med. stud., ibid., 1928-30; M.D.,
Duke (3/19/32); Int., Middlesex General Hospital, Middlesex, N. J.,
7/1/32-12/1/33; Ass't. Res. and Res., Eastern Dispensary and Casualty
Hospital, Washington, D. C., 1/1-6/30/34; Inst. in Physiology and Ass't.
School Physician, Rutgers Univ., New Brunswick, N. J., 7/1/34-6/30/36;
present address (in practice; G), 1001 George's Road, New Brunswick, N. J.
Oren Douglas Boyce (N. C.), North Carolina; M.D., Duke (9/2/33); Int.,
Jefferson Hospital, Roanoke, Va., 9/3/33-6/30/34; and in Obs. and Gyn.,
Vanderbilt Univ. Hospital, 7/1/34-6/30/35; present address (in practice;
G). Rural Retreat. Va.

G), Rural Retreat, Va.
John Walter Brandt (Pa.), Pennsylvania State, George Washington; M.D., Duke (6/6/38); Int., rotat., Pittsburgh Medical Center, 7/1/38-6/30-39; Research Worker in Cancer, Murdock Research Laboratories, New York City, 7/1/39-1/31/40; Ass't. Res., Doctors Hospital, Washington, and Res.

in Med., Pittsburgh Medical Center, 7/1/40-

Edgar Marx Braun (N. J.), Brown; M.D., Duke (6/13/36); Int. in Ped., Brooklyn Jewish Hospital, 7/1/36-6/30/37; Int., rotat., St. Elizabeth's Hospital, 7/1/36-6/30/37; Int., rotat., St. Elizabeth's Hospital, Property of the St. Elizabeth of pital, Elizabeth, N. J., 7/1-8/31/37; Int., rotat., Muhlenberg Hospital, Plainfield, N. J., 11/20/37-6/30/38; Res. in Ped., Beth-El Hospital, Brooklyn, N. Y., 7/1-12/31/38; in practice, Elverton, West Va., 1/1-12/31/39; Res. in Ped., The Children's Hospital, Washington, D. C., 1/15/40—

Earl Winfrey Brian (Ark.), Duke; M.D., ibid. (9/1/34); Int. in Med., Henry Ford Hospital, Detroit, 9/1/34-6/30/35; Int. in Path.. Duke Hospital, 7/1/35-6/30/36; Ass't. Res. in Med. and Res. Physician, Henry Ford Hospital, 7/10/36-8/31/38; present address (in practice; I), Raleigh, N. C. William Henry Bridgers (Va.), Duke; M.D., ibid. (6/13/36); Int. and Ass't. Res. in Surg., Duke Hospital, 7/1/36-6/30/40; Fellow in Neuro-surgery, Montreal Neurological Institute Montreal Canada, 2/1/40.

Montreal Neurological Institute, Montreal, Canada, 9/1/40-

Ernest Bruce Brooks (N. C.), Duke; M.D., ibid. (9/2/33); Int., Union Memorial Hospital, Baltimore, 9/3/33-6/30/34; Ass't. Res., Univ. of Maryland Hospital, Baltimore, 7/1/34-6/30/35; Obs. Outside Service, Charlotte, N. C., July and August, 1935; Int., N. C. Sanatorium for the Treatment of Tuberculosis, Sanatorium, N. C., September and October, 1935; present address (in practice; G), 515 Reynolds Bldg., Winston-Salem, N. C. Ivan Willard Brown, Jr. (N. J.), Rochester; M.D., Duke (12/16/39); Voluntary Ass't. in Anat., 1/1-3/16/40, and in Physiol. & Pharm., Duke University, School, of Medicine, 3/17-6/30/40; Int. in Path. Duke Hospital

sity School of Medicine, 3/17-6/30/40; Int. in Path., Duke Hospital,

7/1/40—

^{*} See footnote, p. 69.

R. Brown (Neb.), Rollins; M.D., Duke (12/16/39); Int., rotat., Illinois Central

Hospital, Chicago, 1/1/40-

Walter Earl Brown (N. C.), North Carolina; med. stud., ibid., 1934-36; M.D., Duke (9/3/38); Int., Baker Sanatorium, Lumberton, N. C., 9/7/38-10/31/39; Res. in Mcd., Park View Hospital, Rocky Mount, N. C., 11/1/39-

Frank Woolridge Buckner (N. C.), Davidson; M.D., Duke (6/13/36); Int. in Surg., Duke Hospital, 7/1/36-2/28/37; Int. in Surg. and Int., Ass't. Res. and Res. in Ear, Nose and Throat, New Haven Hospital, 3/1/37-6/30/40;

Ass't. Res. in Eur, Nose and Inroal, New Travell Hospital, 3/1/37-0/30/40; Ass't. Res. in Surg., Memorial Hospital, New York City, 7/1-12/31/40—Arthur Raymond E. Buirge (Iowa), Drake, Duke; M.D., Duke (12/18/34); Int. in Obs. and Gyn. and in Surg., 1/1/35-6/30/36; and Ass't. and Res. in Surg., Univ. of Minnesota Hospitals, 7/1/36-6/30/38; Trainee in Cancer, U. S. Pub. Health Service, 7/1/38-6/30/39; Res. in Surg., Univ. of Minnesota Hospitals, 7/1/30 sota Hospitals, 7/1/39-

Charles Pardue Bunch (N. C.), Duke; M.D., ibid. (12/17/38); Int., rotat.,

Episcopal Hospital, Philadelphia, 1/1/39-

Julius Caesar Burge, Jr. (S.C.), Citadel; M.D., Duke (6/7/37); Int., rotat., Watts Hospital, Durham, N. C., 7/1/37-6/30/38; Int., N. C. State Sanatorium, Sanatorium, 8/1-12/31/38; and Ass't. Physician, N. C. State Sanatorium, Black Mountain, 1/1/39-

James Merryman Burk (Ind.), Indiana; M.D., Duke (12/17/38); Int., rotat., Illinois Central Hospital, Chicago, 1/1-12/31/39; Res. in Med., Santa Barbara Cottage Hospital, Santa Barbara, Calif., 1/1-6/30/40; House Officer, Jennie Edmundson Memorial Hospital, Council Bluffs, Iowa, 7/1/40—

Margaret Virginia Burns (N. C.), Duke; M.D., ibid. (9/4/37); Int., N. Y. State Hospital, Ray Brook, N. Y., 10/16/37-12/31/37; Int. in Ped., Duke Hospital, 1/1/38-6/30/38; Int., Kent County General Hospital, Dover, Delaware, 7/1/38-1/31/39; Brandywine Sanatorium, Marshallton, Delaware, 1/1/39-5/15/40; Western North Carolina Sanatorium, Black Mountain, N. C., 5/16/40—

Benjamin Brooks Burrill, Jr. (N. J.), Dartmouth, Duke; M.D., Duke (6/13/36); Int., rotat., Mountainside Hospital, Montclair, N. J., 7/1/36-12/31/37; Res., Essex County Isolation Hospital, Belleville, N. J., 1/1-7/31/38; present address (in practice; G), 303 Montgomery St., Bloomfield,

N. J.

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C. Willard Camalier, Jr. (D. C.), George Washington; M.D., Duke (6/6/38); Int., rotat., Ass't. Res. in Surg. and Res. in Orth., Central Dispensary and

Emergency Hospital, Washington, D. C., 6/15/38-

Robert van Liew Campbell (Md.), Maryland; M.D., Duke (12/16/39); Int., rotat., 1/1-6/30/40, and in Med., Baltimore City Hospitals, 7/1/40—

Gordon Gayton Carmichael (Ind.), Rose Polytechnic, Indiana; M.D., Duke (3/18/39); Int., rotat., Grant Hospital, Columbus, 7/1/39-6/30/40, and in Surg., Memorial Hospital, Richmond, Va., 7/1/40—

^{*} See footnote, p. 69.

Richard Rutledge Carter (Ore.), Oregon; M.D., Duke (6/6/38); Int. and Ass't. Res. in Medd., 7/1/38-7/31/40, and Ass't. Res. in Neurol., Duke Hospital, 8/1-12/31/40; Res. in Neurol., Massachusetts General Hospital, Boston, 2/1/41—

David Cayer (N. J.), Duke; M.D., ibid. (12/17/38); Int., N. C. Sanatorium for the Treatment of Tuberculosis, Sanatorium, N. C., 1/1-2/28/39; Int.,

and Ass't. Res. in Med., Duke Hospital, 3/1/39-

James Henderson Cherry (N. C.), Mars Hill; M.D., Duke (12/19/33); Int., Goldsboro City Hospital, Goldsboro, N. C., 1/1-6/30/34, and in Surg., Duke Hospital, 7/1/34-6/30/35; Fellow in Orth. Surg., Mayo Clinic, Rochester, Minn., 7/1/35-6/30/40; present address (in practice; Or), Asheville, N. C.

Minn, 7/1/35-0/30/40; present address (in practice; Or), Asheville, N. C. Charles Francis Chunn (N. C.), Duke; M.D., ibid. (12/20/35); Int. in Surg., Duke Hospital, 1/1/36-4/30/37; Ass't. Res. in Surg., Henry Ford Hospital, Detroit, 5/10/37-8/31/40; present address (in practice; S), Tampa, Fla. Milton Carpinter Cobey (Md.), Amherst; M.D., Duke (9/1/34); Int. in Orth. and in Surg., and Ass't. Res. and Res. in Orth., Johns Hopkins Hospital, 9/1/34-8/31/39; present address (in practice; Or), 1835 Eye St., N. W., Washington, D. C.

Cecil Curtis Collins, Jr. (Fla.), Marion Institute, Duke; M.D., Duke (3/16/40);

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Victor Conforti (Conn.), Connecticut State; M.D., Duke (6/3/40/); Int., rotat., King's County Hospital, Brooklyn, N. Y., 7/1/40—

Martin Edward Conti (W. Va.), West Va.; med. stud., ibid., 1929-31; M.D., Duke (3/22/33); Int. in Obs. and Gyn., Duke Hospital, 3/23-8/31/33; rotating Watts Hospital, Durham, N. C., 9/1/33-8/31/34, and City Hospital, Mobile, Ala., 7/1/34-6/30/35; in practice, Youngstown, Ohio, 7/1/35-6/30/39; Lieut., U. S. Navy, Norfolk Naval Hospital, Portsmouth, Va., 9/1/30— 9/1/39-

Gabriel Hernando Cortes (Colombia, S. A.), Michigan, Duke; M.D., Duke (12/20/35); Int. in Med., New York Postgraduate Hospital, 1/1/36-12/31/37; Res. in Path., Jersey City Medical Center, 4/1-10/31/38; Jr. Res. in Surg., New York Postgraduate Hospital, 11/1/38—

Kenneth John Costich (N. Y.), Holy Cross; M.D., Duke (12/20/35); Int., rotat., New York Polyclinic Hospital, 1/1-4/3/36; Int., Hugh Chatham Memorial Hospital, Elkin, N. C., 7/25/36-6/30/37; Int., rotat., Ellis Hospital, Schenectady, N. Y., 7/12/37-6/30/38; Associate Physician, Veterans Hospital, Los Angeles, 9/25-12/31/38, Livermore, Calif., 1/1-10/31/39, and Chicago, 11/15/39-6/30/40: Med. Officer, Veterans Hospital, Hines III. Chicago, 11/15/39-6/30/40; Med. Officer, Veterans Hospital, Hines, Ill.

James Madison Covington, Jr. (N. C.), Davidson; M.D., Duke (6/6/38) Int., rotat., Central Dispensary & Emergency Hospital, Washington, D. C., 7/1/38-6/30/39; Int., Grady Hospital, Atlanta, Ga., 7/1/39-6/30/40, in

Obs., 7/1-12/31/40, and in Ped., Duke Hospital, 1/1/41-

John Hulon Cox (N. C.), North Carolina; med. stud., ibid., 1934-36; M.D., Duke (9/3/38); Int., Pub. Health Serv., U. S. Marine Hospital, Chicago, 9/1/38-7/31/39, and Veterans Hospital, Minneapolis, 2/1-4/30/40; Lieut., U. S. Navy Medical Corps., Norfolk Naval Hospital, Portsmouth, Va., 5/13/40-

Felix Hughes Crago (W. Va.), West Va.; med. stud., ibid., 1931-33; M.D., Duke (6/8/35); Int., rotat., Ancker Hospital, St. Paul, Minn., 7/1/35-6/30/36; Fellowship in Med., Univ. of Minnesota, 7/1/36-6/30/39; present

address (in practice; G), Great Falls Clinic, Great Falls, Mont. Charles Cramer (N. Y.), Cooper Union, Columbia; M.D., Duke (8/31/35); Int. in Med., Vanderbilt University Hospital, 9/1/35-6/30/36; Res. in Path., St. John's Hospital, Brooklyn, N. Y., 7/1/36-6/30/37; Ass't. Res.

^{*} See footnote, p. 69.

and Res. in Med., Queen's General Hospital, Long Island, N. Y., 7/1/37-

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Maurie Bertram Cree (N. C.), Wake Forest; M.D., Duke (12/19/34); Int., rotat., Baptist Memorial Hospital, Memphis, Tenn., 1/10/35-6/30/36; Gen'l. Res. and Res. in Surg., Greenville General Hospital, Greenville, S. C., 7/1/36-6/30/37; in practice, Newport News, Va., 7/1-11/30/37; Res., Rex Hospital, Raleigh, N. C., 12/1/37-6/30/38; Res. in Surg., James Walker Memorial Hospital, Wilmington, N. C., 7/1/38-6/30/39; Surgeon, Camp Wright Hospital, Manteo, N. C., 7/1-8/31/39; in practice; S, Concord, N. C., 9/1/39-10/15/40; Ist Lieut., Med. Corps, U. S. Army, 67th Station Hospital, 10/16/40— Hospital, 10/16/40-

Frank Harold Crosby (N. Y.), Illinois; M.D., Duke (6/5/39); Int., rotat., St. Luke's Hospital, Cleveland, 7/1/39-6/30/40; Ass't. Res. in Surg., Me-

morial Hospital, Charlotte, N. C., 7/1/40—
Almon Rufus Cross (N. H.), New Hampshire; M.D., Duke (6/6/38); Int. in Obs. and Ped., Duke Hospital, 7/1/38-6/30/39, and Int. and Ass't. Res. in Obs. & Gyn., New York Hospital, 7/1/39-

James Hawley Currens (Ill.), Western Illinois State Teachers, Michigan; M.D., Duke (6/6/38); Int. in Med., Boston City Hospital, 7/1/38-12/31/39;

Fellow in Med., Mayo Clinic, Rochester, Minn., 1/1/40-

Bennie Booker Dalton (N. C.), North Carolina; med. stud., ibid., 1928-30; M.D., Duke (6/11/32); Int., McKeesport Hospital, McKeesport, Pa., 7/1-7/31/32; and Watts Hospital, Durham, N. C., 8/1/32-7/31/33, and Wassaic State School, Wassaic, N. Y., 10/10/33-10/10/34; County Health Officer, Rockingham, N. C., 1/1/35-10/31/36; present address (in practice; G), Liberty, N. C.

William Howard Darden (Ala.), Alabama; med. stud., ibid., 1929-31; M.D., Duke (12/21/32); Int. and Ass't. Res., Northwestern Hospital, Minneapolis, Minn., 1/1/33-12/31/34; in practice, 2141/2 Vermillion St., Hastings, Minn., 7/1-12/15/35; present address. Emergency Hospital of the Tennes-

see Coal, Iron and Railroad Co., Ensley, Birmingham, Ala.

see Coal, Iron and Railfoad Co., Ensley, Birmingnam, Ala.

Harry Leonard Dein (N. J.), Duke; M.D., ibid. (3/20/37); Int. in Med.,
Duke Hospital, 3/21-6/30/37; Int., rotat., Atlantic City Hospital, 7/1/376/30/38; Int. in Surg., Duke Hospital, 7/1/38-6/30/39; Ass't. Res. and
Res. in Surg., Welfare Hospital, Welfare Island, N. Y., 7/1/39—

John Sinclair Denholm (Pa.), Pittsburgh; M.D., Duke (11/30/35); Int. in
Med., Duke Hospital, 12/1/35-8/31/36; Ass't. and Clinic Phys., N. C. Sanatorium for the Treatment of Tuberculosis, Sanatorium, N. C., 7/1/366/30/39; present address (in practice: G.) Burlington N. C.

6/30/39; present address (in practice; G), Burlington, N. C.

Rudolph John Depner (R. I.), Rhode Island State, Missouri; med. stud., latter, 1928-30; M.D., Duke (3/19/32); Int., Kansas City Hospital, 7/1/32-6/30/33; Ass't. Res. and Ass't. Sup't., Exeter School, Lafayette, R. I., 7/1/33 7/31/35. Med. Int. 4.3't. B. Exeter School, Lafayette, R. I., 7/1/33-7/31/35; Med. Int. and Ass't. Phys. in Psychiatry, Child Guidance Clinic, Wassaic State School, Wassaic, N. Y., 8/1/35—

John William Devine, Jr. (Va.), Washington and Lee; M.D., Duke (3/21/35); Int. in Surg., and Ass't. Res. in Surg. and Path., Duke Hospital, 7/1/35-

6/30/38; present address (in practcie; S), Lynchburg, Va.

Vanderbilt Univ. Hospital, 7/1/36-6/30/37; Jr. Ass't. in Path., Duke Hospital, 7/1/37-6/30/38; Int., New York City Lying-in Hospital (Cornell Medical Center), 7/1/38-6/30/39; Ass't. Res. in Obs. and Gyn., New York

Hospital, 7/1/39-

Benjamin George Dinin (N. Y.), New York Univ., Alabama; M.D., Duke (9/2/33); Int. in Med., Duke Hospital, 9/3/33-8/31/34; Ass't. Res., New York Hospital, New York City, 9/1/34-6/30/35; Int. in Ped., Brooklyn Jewish Hospital, Brooklyn, N. Y., 7/1/35-6/30/36; Res. in Communicable Diseases and Deputy Med. Supt., Kingston Ave. Hospital, Brooklyn, N. Y., 7/1/36-

^{*} See footnote, p. 69.

Grant Lester Donnelly (N. C.), Duke, Chicago; med. stud., North Carolina, 1927-30; M.D., Duke (6/10/33); Int. in Obs. and Gyn., Duke Hospital, 6/12-8/31/33; Assoc. Prof. in Phar., Univ. of North Carolina, 9/1/35—John Munroe Douglas (S. C.), Davidson; M.D., Duke (6/5/39); Int. in Med., Strong Memorial Hospital, Rochester, N. Y., 7/1/39—

Jere Robert Downing (Me.), Duke, New Hampshire; M.D., Duke (6/5/39); Int., rotat., Maine General Hospital, Portland, Me., 7/1/39—

Highland Clinic, Shreveport, La., 7/1/39—
Raymond John Duffy (W. Va.), Pittsburgh; med. stud., West. Va., 1929-31;
M.D., Duke (6/10/33); Int., Boston Psychopathic Hospital, 7/1/33-6/30/34;
Staff Member, McLean Hospital, Waverley, Mass., 7/1/34-4/30/35; Int., 5/1/35-12/31/36, and Psychiatrist in Charge, Carney Hospital, 1/1/37-6/30/38; Staff Psychiatrist, Mass. General and St. Elizabeths Hospitals,

only 18; Staff Psychiatrist, Mass. General and St. Elizabeths Hospitals, and in practice (P), 482 Beacon St., Boston, Mass., 7/1/36—
Charles Ross Duncan (N. C.), Wake Forest; med. stud., ibid., 1931-33; M.D., Duke (9/4/37); Int., rotat., Rex Hospital, Raleigh, N. C., 9/1/37-6/30/38; Res., general, Spartanburg General Hospital, Spartanburg, S. C., 7/1/38-6/30/39; Int., N. C. Orthopedic Hospital, Gastonia, 7/1/39-6/30/40, and Res., Baptist Hospital, Winston-Salem, N. C., 7/1/40—
Ernest Brindley Dunlap, Jr., (Okla.), Duke; M.D., ibid. (6/5/39); Int. in Ped., Duke Hospital, 7/1-8/31/39; Int. in Med. (Private Wards), Johns Hopkins Hospital, 9/1/40—

9/1/40-

Elbert Newton DuPuy (W. Va.), West Virginia; med. stud., ibid., 1928-30; M.D., Duke (3/19/32); Int., rotat., Church Home and Infirmary, Baltimore, Md., 7/1/32-6/30/33; Ass't. Res. and Res. in Obs. and Gyn., University of Maryland Hospital, Baltimore, Md., 7/1/34-6/30/36; in practice, Buchanan Co., Va., 7/1/36-2/28/37; Surgeon, SS "City of Norfolk," 3/1-9/30/37; present address (in practice; G), Beckley, W. Va. chie Yelverton Eagles (N. C.), Atlantic Christian, Duke; M.D., ibid., (6/5/39); Int. and Ass't. Res. in Med., Baltimore City Hospitals, 7/1/39—reapor Beamer Easley (Idaho). Idaho, Josva George Peahody Vanderbilt.

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Lohn Watson Edwards (Okla), Natural Marica, Military, Institute, Duke, A.D.

John Watson Edwards (Okla.), New Mexico Military Institute, Duke; M.D., Duke (6/13/36); Int. and Ass't. Res., University of California Hospital, San Francisco, Cal., 9/1/37-6/30/39, and Res. in Ped., San Francisco City & County Hospital, 7/1/39-6/30/40; present address (in practice; Pd), Medical Arts Bldg., Tulsa, Okla.

Harry Stough Etter (Pa.), Duke: M.D., ibid. (12/16/39); Int. in Med., Bellevue (Cornell), 1/1-6/30/40; Lieut., U. S. Navy, Norfolk Naval Hospital,

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Instr. in Otolaryn. and Ophthal., Duke Univ. School of Medicine, 9/1/39—Arnold Lewis Field (N. Y.), Johns Hopkins; M.D., Duke (12/17/38); Int. in Surg., Union Memorial Hospital, 1/1-6/30/39, and Int., and Ass't. Res. in Surg., Woman's Hospital, Baltimore, 7/1/39—

^{*} See footnote, p. 69.

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Richard Webster Finner (Fla.), Florida; M.D., Duke (12/16/39); Voluntary Ass't., Montreal Neurological Institute, 1/1-6/30/40; Int. in Med., Long Island College Hospital, Brooklyn, N. Y., 7/1/40—
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William Henry Fisher, Jr. (Md.), Duke; M.D., ibid. (6/3/40); Int. in Surg., Univ. of Maryland Hospital, Baltimore, 8/10/40—
John Dean Fitzgerald (N. C.), Duke; M.D., ibid. (9/1/34); Int., rotating and

John Dean Fitzgerald (N. C.), Duke; M.D., ibid. (9/1/34); Int., rotating and in Surg., Watts Hospital, Durham, N. C., 9/1/34-6/30/36; Ass't., Rainey Hospital, Burlington, N. C., 7/1/36-6/30/37; Associate, Alamance General Hospital, Burlington, N. C., 7/1.12/31/37; present address (in practice). Hospital, Burlington, N. C., 7/1-12/31/37; present address (in practice; S), Roxboro, N. C.

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Joseph B. Ford, Jr. (Ga.), Duke; M.D., ibid. (12/16/39); Int., N. C. Sanatorium for the Treatment of Tuberculosis, Sanatorium, N. C., 1/1/40—William Nicholas Fortescue (N. C.), Duke; M.D., ibid. (6/9/34); Int. and Ass't. Res. in Med., Long Island Hospital, Boston, Mass., 7/1/34-5/31/36; present address (in practice; G), Hendersonville, N. C.

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Med., Duke Univ. School of Medicine, 7/1/40—William Penn Frazer (Va.), Richmond; M.D., Duke (9/2/33); Int., Stud. Health Serv., Duke Hospital, 10/1/33-6/30/34; Int. in Obs. and Gyn., Johns Hopkins Hospital, 9/1/34-8/15/35; Int. in Ped., Bellevue Hospital, New York City, 8/15-12/31/35; present address (in practice; G), Hamilton, Va. Gustave Freeman (Ga.), Georgia, Browne, Columbia; M.D., Duke (9/2/33); Int. in Med., Duke Hospital, 9/3/33-6/30/34; Int. and Ass't. Res. in Path., New Haven Hospital, and Ass't. in Path., Yale School of Medicine, 7/1/34-12/31/35; Ass't. and Instr. in Med., Univ. of Chicago Clinics, 1/1/36—Robert Carson Fugate (Va.), Washington and Lee, Emory and Henry, Duke; M.D., Duke (3/20/37); Int. in Ped. Duke Hospital, 4/1-4/30/37. Int.

M.D., Duke (3/20/37); Int. in Ped., Duke Hospital, 4/1-4/30/37; Int., Manhattan Eye, Ear & Throat Hospital, New York City, 6/1-6/27/37; Int., rotat., Harper Hospital, Detroit, 6/28/37-6/28/38; Int., Ass't. Res. and Res., in Otolaryn. and Ophthal., Duke Hospital, 7/1/38-

William Henry Fulmer (Ga.), Duke; M.D., ibid. (6/3/40); Int. in Surg.,

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James Francis Fulp (N. C.), Vanderbilt, Duke; M.D., Duke (6/8/35); Int., Goldsboro City Hospital, Goldsboro, N. C., 7/1-8/31/35; Int., N. C. Sanatorium for the Treatment of Tuberculosis, Sanatorium, N. C., 9/1-12/31/35; Int., rotating, Jersey City Medical Center, Jersey City, N. J., 1/1/36-6/30/37; present address (in practice: G), Stoneville, N. C.

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^{*} See footnote, p. 69.

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Cole Deane Genge (Wisc.), Ripon, Stanford; M.D., Duke (12/18/34); Int., rotating, Hospital of St. Vincent de Paul, Norfolk, Va., 7/1/35-6/30/36; Int., Duke Hospital, 11/17-12/31/36, and House Officer and Res. in Roent., Boston City Hospital, 1/1/37-6/30/39; present address (in practice; R), Huntington, W. Va.

Huntington, W. Va.
Harry-Rolf Germer (Germany), Deutsche Aufbauschule; med. stud., Jena, 1930-33; M.D., Duke (3/21/36); N. C. State Board of Health, Chapel Hill, N. C., 6/10-9/30/36; Ass't. Health Officer, County Health Department, Winston-Salem, N. C., 10/1/36-6/30/37; Int., Marine Hospital, Baltimore, 7/1/37-6/30/38, and Act. Ass't. Surg., U. S. Pub. Health Serv. Quarantine Station, Curtis Bay, Md., 7/1-8/31/38; Ass't. Health Officer Winston-Salem, N. C., 9/1/38-8/31/39; Postgraduate Student in Pub. Health, Univ. of North Carolina, Chapel Hill, N. C., 9/15/39-8/31/40; Instr. in Pub. Health & Prevent. Med., Univ. of Texas Medical School, 9/1/40... 9/1/40-

Julius Joyce Gibbons, Jr. (N. C.), Duke; M.D., ibid. (3/16/40); Voluntary Ass't., Carolina General Hospital, Wilson, N. C., 4/1-5/31/40; Int., rotat., University Hospitals, Iowa City, 7/1/40—
Atticus James Gill (Tex.), Duke; M.D., ibid. (6/6/38); Int., Duke Hospital, 7/1/38-6/30/39, Res., St. Paul's Hospital, Dallas, Texas, 7/1/39-6/30/40, and Ass't. Res. in Path., Duke Hospital, 7/1/40—
Dan Cummins Gill (Okla.), Virginia Military Institute, Oklahoma; M.D., Duke (6/6/38); Int. in Med., University of Minnesota Hospitals, Minneapolis, Minn., 7/1/38-6/30/39, and Int. and Ass't. Res. in Surg., New York Hospital, 7/1/39—
William Henry Glass (N. Y.) Furman: M.D. Duke (6/7/37); Int. rotat.

William Henry Glass (N. Y.), Furman; M.D., Duke (6/7/37); Int., rotat., Sydenham Hospital, New York City, 7/1/37-6/30/39; Res. in Med., Welfare Hospital, Welfare Island, N. Y., 7/1/39-6/30/40; Ass't. Physician, Cedarcrest Sanatorium, Hartford, Conn., 7/1/40—

David Watson Goddard (Ohio), Duke; M.D., ibid. (12/16/39); Int. in Path.,

Duke Hospital, 1/1/40-

Duke Hospital, 1/1/40—
Richard Hobart Godwin (N. Y.), New York, Duke, Illinois; M.D., Duke (6/9/34); Int., rotating, Cumberland Street Hospital, Brooklyn, N. Y., 7/1/34-6/30/36; Int. and Ass't. Res. in Ped., New York Hospital, 7/1/36-6/30/39; present address (in practice; G), Woodhaven, Long Island, N. Y. Thomas Alphonse Gonder, Jr. (Md.), Maryland, West Virginia; M.D., Duke (6/7/37); Int. in Med., Johns Hopkins Hospital, 9/1/37-8/31/38; Int., rotat., West Baltimore Hospital, 11/21/38-6/30/39; Ass't. Physician, Children's Hospital, Boston, 8/1-10/31/39; Fellow in Med., Johns Hopkins Med. School, 11/1/39-7/31/40; present address (in practice; I), 814 Park Ave Baltimore Md. Ave., Baltimore, Md.

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Abner Gorfain (N. Y.), New York, North Carolina; M.D., Duke (9/1/34); Int., Christ Hospital, Cincinnati, O., 9/1/34-8/31/35; Int. in Surg., Bellevue Hospital, 9/1/35-2/29/36; and Res. in Urol., Postgraduate Hospital, New York City, 6/1/36-5/31/37; present address (in practice; U), Westwood, Los Angeles Colif Los Angeles, Calif.

^{*} See footnote, p. 69.

Aubrey Crafton Gose (Va.), Lincoln Memorial, Emory and Henry; M.D., Duke (6/7/37); Int. in Path., Washington University Medical School, 7/1/37-5/30/38; Instructor in Path., Washington University School of Medicine and Res. in Path., St. Louis County Hospital, Clayton, Mo., 7/1/38-6/30/39; Int. and Ass't. Surg., U. S. Pub. Health Serv., U. S. Marine Hospital, Stapleton, Staten Island, N. Y., 7/1/39—

Robert Williams Graves (Ga.), Davidson, Princeton; M.D., Duke (9/2/33); Int. and Ass't. Res. in Med., New Haven Hospital, 1/1/34-12/31/35; Postgraduate work, National Hospital, London, Eng., 1/1-6/30/36; Instr. in Med. and Anat., and Assoc. in Neurol., Duke University School of Medi-

cine, 7/1/36—
Cyrus Leighton Gray, Jr. (N. C.), High Point; M.D., Duke (6/7/37); Int. in Surg., Duke Hospital, 7/1/37-5/21/38; Ass't. Phys., N. C. Sanatorium for

Surg., Duke Hospital, 7/1/37-5/21/38; Ass't. Phys., N. C. Sanatorium for the Treatment of Tuberculosis, Sanatorium, N. C., 6/1/38—

Jack Greenfield (N. Y.), Johns Hopkins; M.D., Duke (8/31/35); Int. in Surg., Duke Hospital, 9/1/35-6/30/36; Int., rotating, Flower and Fifth Avenue Hospital, 7/1/36-6/30/37; and Res. in Surg., York Hospital, New York City, 7/15/37-5/31/38; Ass't. Res. in Surg., Starling Loving Hospital, Ohio State University, Columbus, Ohio, 6/15/38/-6/30/39; Research Ass't. in Surg., The Ohio State University Hospital, 7/1/39-6/30/40; Res. in Thoracic Surg., Cleveland City Hospital, 7/1/40—

William Reed Haas (Minn.), Minnesota, Carleton, Wisconsin; M.D., Duke, (3/19/38); Int. in Med., Duke Hospital, 6/20-10/27/38; Int., N. Y. State Hospital, Ray Brook, N. Y., 11/1-12/20/38; Int. in Med., New Haven Hospital, 1/1/39-6/30/40; Ist Lieut., Medical Corps, U. S. Army, Fort Snelling, Minneapolis, Minn., 7/1/40-11/15/40, and Fort Clayton, Canal Zone, Panama, 11/16/40—

Charles Edgar Haines, Jr. (N. J.), Rutgers, Duke; M.D., Duke (6/7/37); Int. in Med., Baltimore City Hospitals, 7/1/37-6/30/38; Int. in Surg., and Int. and Ass't. Res. in Urol., Duke Hospital, 7/1/38—

Int. and Ass't. Res. in Urol., Duke Hospital, 7/1/38-

Risley Frith Haines (Cuba), Duke; M.D., ibid. (6/3/40); int. in Med., Baltimore City Hospitals, 7/1/40—

Collins Fremont Hall (Pa.), Gettysburg; M.D., Duke (6/6/38); Int., rotat., Harrisburg General Hospital, Harrisburg, Pa., 7/1/38-6/30/39, and Int. and Ass't. Res. in Otolaryn. & Ophthal., Duke Hospital, 7/1/39—

William Lorenz Haltom (Ark.), Hendrix, Alabama; med. stud., ibid., 1928-30; M.D., Duke (3/19/32); Int. in Surg. and Ass't. Res. in Urol., Duke Hospital, 7/1/32-11/30/33; Res., Presbyterian Hospital, Chicago, Ill., 1/1-12/31/34; Ass't. Res. and Res. in Urol., Duke Hospital, 1/1/35-12/31/36;

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Robert Albert Hare (N. J.), Ohio State; M.D., Duke (9/1/34); Int. in Med.,
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Ass't. Mellon Fellow in Ophthal, Johns Hopkins Hospital, 9/1/35-12/31/39;

present address (in practice; Oph), West Los Angeles, Calif.

George Thomas Harrell, Jr. (N. C.), Duke; M.D., ibid. (6/13/36); Int. in Med. and Jr. Ass't. in Path., Duke Hospital, 7/1/36-12/17/37; Director of Laboratories and Pathologist, City Memorial Hospital, Winston-Salem, N. C.,

Laboratories and Pathologist, City Memorial Hospital, Winston-Salem, N. C., 12/18/37-6/30/38; Ass't. Res. and Res. in Med., Duke Hospital, 7/1/38—H. Patterson Harris, Jr. (Conn.), Yale; M.D., Duke (3/21/36); Int. in Surg. and Neuro-Surg., Massachusetts General Hospital, Boston, 4/15-12/31/36; House Officer, rotating, Faulkner Hospital, Boston, 7/1/37-10/15/38; Ass't. in Surg., Bridgeport Hospital, Bridgeport, Conn., 2/16-12/31/39; Ass't. Sup't., Worcester City Hospital, Worcester, Mass., 5/1/39—Willis Wilbur Harris (Fla.), Florida; M.D., Duke (6/3/40); Int., rotat., Albany Hospital, Albany, N. Y., 7/1/40—
Leroy Day Harshman (Pa.), Waynesburg; M.D., Duke (12/16/39); Int., rotat., Washington Hospital, Washington, Pa., 1/1-6/30/40, and Buffalo City Hospital. 7/1/40—

City Hospital, 7/1/40-

^{*} See footnote, p. 69.

Harold Ira Harvey (Conn.), Harvard; M.D., Duke (6/7/37); Int. and Ass't. Res. in Med., Duke Hospital, 7/1/37-3/31/39; Ass't. in Physiol., Duke Med. School, 4/1-6/30/39; Ass't. Res. in Med. Private Diag. Clinic, Duke Hospital, 7/1/39-6/30/40; Physician, Camp Medomak, Washington, Maine, 7/1-8/31/40; Fellow in Neurol. and Psychiatry, Massachusetts General Hos-

pital, Boston, 9/1/40— Walter Thalman Hasler, Jr. (Utah), Brigham Young; med. stud., Utah, 1929-31; M.D., Duke (3/22/33); Int., rotating, Church Home & Infirmary, Baltimore, Md., 7/1-6/30/34; Ass't. Res. and Res. in Otolaryn., Duke Hospital, 7/1/34-6/30/36; present address (in practice; OALR), Everett, Wash.

Walter Darlington Hastings, Jr. (Tenn.), Columbia Military Academy, Duke; M.D., Duke (6/6/38); Int. in Orth. and in Surg., Duke Hospital, 7/1/38-6/30/40; Ass't. Res. in Surg., Charlotte Memorial Hospital, Charlotte, N. C., 7/1/40-

William Carter Hawkins (N. C.), Mars Hill, Duke; M.D., Duke (6/3/40); Int. in Obs. and Ped., Duke Hospital, 7/1/40—

William Victor Haymond (Utah), Utah; M.D., Duke (12/17/38); Int. in Surg., University of Chicago Clinics, 1/1-12/31/39; Int., rotat., Santa Clara

County Hospital, San Jose, Calif., 1/1/40— George Heinitsh (S. C.), North Carolina; med. stud., ibid., 1928-30; M.D., Duke (3/19/32); Int. in Surg., Ass't. Res. in Priv. Diag. Clinic, and Ass't. Duke (3/19/32); Int. in Surg., Ass't. Res. in Priv. Diag. Clinic, and Ass't. Res. and Res. in Otolaryn, Duke Hospital, 7/1/32-3/31/37; in practice, Logan, W. Va., March, 1937-Aug., 1938; in practice, Fayetteville, N. C., 8/15/38-3/31/40; Ist Lieut., U. S. Army, Fortress Monroe, Va., 4/1/40—Alfred Faxon Henderson (Ill.), Joliet Junior, Duke; M.D., Duke (6/7/37); Int., rotat., Emergency Hospital & Central Dispensary, Washington, D. C., 7/1/37-6/30/38; Int. in Surg., Path. and Urol., Duke Hospital, 7/1/38—Marvin S. Herrington (Va.), Duke; M.D., ibid. 3/20/37); Int., N. C. State Sanatorium, 3/22-6/15/37; Int., rotat., Res. in Med., Ass't. Res. and Res. in Surg., Norfolk General Hospital, Norfolk, Va., 7/1/37-6/30/40; present address (in practice; G), 201 Haugh Ave., Norfolk, Va.
Joseph Spurgeon Hiatt (N. C.), Lenoir Rhyne, Duke; M.D., latter (12/16/39); Int., N. C. Sanatorium for the Treatment of Tuberculosis, Sanatorium, N. C., 1/1-2/28/40, and in Med., Duke; M.D., ibid. (6/6/38); Int., rotat.,

Harry Stuart Hickman (N. C.), Duke; M.D., ibid. (6/6/38); Int., rotat., Norfolk General Hospital, Norfolk, Va., 7/1/38-6/30/39, and Nashville General Hospital, Nashville, Tenn., 7/1/39-6/30/40; present address (in practice; G). Lenoir, N. C.

William Fredwin Hollister (Calif.), Santa Monica Junior, California; M.D., Duke (6/6/38); Int. and Ass't. Res. in Surg., Duke Hospital, 7/1/38-

Harry Myer Holtz (N. J.), Ohio State, Columbia, Duke; M.D., Duke (6/8/35); Int., rotating, Newark Beth Israel Hospital, Newark, N. J., 1/1-12/31/36; Ass't. in Eye Clinic, St. Michael's Hospital, Newark, 1/7-9/30/37; Postgraduate work, Royal London Ophthalmic Hospital, London, 9/25/37-2/28/38; Postgraduate work, Union Eye Clinic, Debrecen, Hungary, 3/1-4/30/38; Eye service, St. Michael's Hospital, Newark, N. J., 5/15/38-6/30/38;

present address (in practice; Oph.), 56 Johnson Ave., Newark, N. J. Harold Maclachlan Horack (N. C.), Duke, Iowa; M.D., Duke (3/20/37); House Officer in Med., Peter Brent Brigham Hospital, Boston, 6/15/37-2/28/39; Res. in Path., Boston City Hospital, 3/1-6/30/39, and Hospital of University of Pennsylvania, and Ass't. Instr. in Path., University of Pennsylvania School of Medicine, 7/1/39-6/30/40; Ass't. Res. in Med., Duke

Hospital, 7/1/40-

Newton Hornick (N. Y.), Catawba; M.D., Duke (6/7/37); Int., rotat., Am-

bulance Service, and Ass't. Res. and Res. in Roent., Long Island College Hospital, Brooklyn, N. Y., 7/1/37—

Jay Leonard Hutchison (W. Va.), Marshall; M.D., Duke (12/19/33); Int. in Surg., Duke Hospital, 1/1-6/30/34; Res., N. C. Orthopedic Hospital, Gastonia, N. C., 7/1/34-6/30/35; Res. in Orth., Duke Hospital, 7/1/35-

^{*} See footnote, p. 69.

2/29/36; Res., N. C. Orthopedic Hospital, 3/1-3/15/36; Res. in Orth., Univ. of Virginia Hospital, 3/16-5/31/36; and Logan General Hospital, Logan, W. Va., 6/1/36-5/31/37; present address (in practice; Or), 1141

4th Ave., Huntington, W. Va. Joe McKinney Ivie (N. C.), Duke; M.D., ibid. (6/6/38); Int. in Med., Baltimore City Hospitals, 7/1/38-6/30/39; Int., Lewis-Gale Hospital, Roanoke, Va., 7/1-9/30/39; Fellow in Radiology, Mayo Clinic, Rochester, Minn.,

10/1/39-

Arthur M. Jenkins (N. J.), Springfield, Simpson; M.D., Duke, (12/20/35); Int., rotating and Ass't. Res. in Ped., Union Memorial Hospital, Baltimore, Md., 1/1/36-6/30/37; Ass't. Res. in Med., Medical College of Virginia Memorial Hospital, Richmond, Va., 7/1/37-6/30/38; present address (in practice).

practice; G), Frenchtown, N. J.

Raymond Taylor Jenkins (N. C.), North Carolina; M.D., Duke (6/8/35); Int. in Surg., Duke Hospital, 7/1-11/24/35; Int. and Ass't. Phys., N. C. Sanatorium for the Treatment of Tuberculosis, Sanatorium, N. C., 4/1/36-10/31/37; Ass't. Phys., Western N. C. Sanatorium, Black Mountain, N. C., 11/1-12/31/37; Clinic Phys., N. C. Sanatorium, Sanatorium, N. C., 1/1/38-2/28/39: 1st Lieut., U. S. Army Med. Corps., Station Hospital, Fort Bragg, N. C., 3/24/39-

Rolf Elmo Johnson (Pa.), Duke; M.D., ibid. (3/16/40); Int., rotat., N. C. Orthopedic Hospital, Gastonia, N. C., 3/25-6/30/40, and Union Memorial Hospital, Baltimore, Md., 7/1/40—

Arthur Harvey Joistad, Jr. (N. Dak.), Minnesota, North Dakota; med. stud., latter, 1933-35; M.D., Duke (12/18/37); Int. in Ped., Strong Memorial Hospital, Rochester, N. Y., 1/1/38-6/30/38; Int. and Ass't. Res. in Med., Duke Hospital, 7/1/38-6/30/40; Fellow in Radiology, University of Michigan Hospital, 7/1/40—

Julia Mary Jones (Ohio), Denison, Ohio, State; M.D., Duke (3/21/35); Int. in Med., Johns Hopkins Hospital, 3/22-6/30/35; Vol. Ass't., New York State Hospital, Raybrook, N. Y., 9/1-12/31/35; Ass't. in Anat., Duke Med. Sch., and Int. and Ass't. Res. in Med., Duke Hospital, 1/1/36-12/31/37; Ass't., William H. Maybury Sanatorium, Northville, Mich., 1/1/38-6/30/39; Chief Ass't. Res. and Chief Res. Tuberculosis Serv., Bellevue Hospital, New York City, and Ass't. in Med., College of Physicians and Surgeons, Columbia University, 7/1/40-

Roderic Orlando Jones (Fla.), Johns Hopkins, John B. Stetson; M.D., Duke (12/20/35); Int. in Med., University of Chicago Clinics, 1/1-12/31/36; Int., Baker Sanatorium, Lumberton, N. C., 1/1/37-2/28/38; Stud. in N. C. State Pub. Health Serv., Chapel Hill, N. C., 3/7-6/30/38; present address

(in practice; PH), Burnsville, N. C.

Austin Louis Joyner (La.), Millsaps, Tulane; M.D., Duke (9/1/34); Int., rotating, Goldsboro City Hospital, Goldsboro, N. C., 9/1-9/30/34); Fellow in Bact. and Int. in Med., Duke Hospital, 10/1/34-6/30/36; Ass't. in Path. and Bact., Rockefeller Institute, 7/1/36-6/30/38; Ass't. Prof. of Bact. and Path, University of Alabama School of Medicine, Tuscaloosa, Ala, 9/1/38-7/31/39; Medical Staff, Lederle Laboratories, New Orleans, 9/1-12/31/39; Assoc. Director, Lederle Laboratories, Pearl River, N. Y., 1/1/40-

George William Joyner (Va.), Wake Forest; med. stud., ibid., 1928-30; M.D., Duke (6/11/32); Int., Ass't. Res. and Res. in Surg., Duke Hospital, 7/1/32-

8/31/38; present address (in practice; S), Asheboro, N. C.

Rayburn Nelson Joyner (N. C.), Wake Forest; M.D., Duke (9/2/33); Junior and Senior Int., rotating, Jacksonville Duval County Hospital, Jacksonville, Fla., 9/3/33-6/30/35; in practice, Hastings, Fla., 7/1/35-6/30/36; Director, Bureau of Maternal and Child Health, Jacksonville, Fla., 9/1/36—

^{*} See footnote, p. 69.

William Henry Kaufman (Md.), Johns Hopkins; M.D., Duke (9/4/37); Int., N. C. State Sanatorium, 9/29/37-10/30/37; Int. and Ass't. Res. in Med., Duke Hospital, 11/1/37-11/30/39; Ass't. Res. in Derm. and Syphil., Univ.

of Va. Hospital, 1/1/40-

William Paul Kavanagh (Ill.), Wheaton; M.D., Duke (8/31/35); Int., rotating, Highland Park General Hospital, Detroit, 7/1/36-6/30/37; Ass't. Res. in Surg., Watts Hospital, Durham, N. C., 7/1/37-6/30/38; present address (in practice; G), Cooleemee, N. C.

James Woodruff Kelley (Del.), Delaware; M.D., Duke (6/3/40); Int., rotat., Delaware Hospital, Wilmington, Del., 7/1/40—

Charles Mattor Kendrick (N. C.), Duke mad study in the North Constitution

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10/1/35-12/31/38; present address (in practice; OALR), Medical Arts Bldg., Norfolk, Va.
Jeremiah Wolfe Kerner (N. J.), Georgia; M.D., Duke (9/5/36); Int., rotating, and Maternity Service, Los Angeles County Hospital, 10/1/36/12/26/37; Res., Outside Obs., Los Angeles County Hospital, 12/27/37-6/30/38; Res., Rancho Los Amigos, Hondo, Calif., 7/1/38-6/30/39; Med. Director, American House (branch, Los Angeles County Hospital) (and

Director, American House (branch, Los Angeles County Hospital) (and in practice; G), 7/5/39—
Harold Barker Kernodle (N. C.), Duke; M.D., ibid. (6/5/39); Int. In Obs. and Ped., 7/1/39-6/30/40, and in Surg., Duke Hospital, 7/1/40—
Thomas DeArman Kinney (Pa.), Pennsylvania; M.D., Duke (9/5/36); Int. in Med. and in Urol., Johns Hopkins Hospital, 9/6/36-8/31/38; Ass't. in Path., Yale Medical School, and Int. in Path., New Haven Hospital, 9/1/38-8/31/39; Ass't. Res., Mallory Institute of Pathology, Boston City Hospital, 7/1/39—, and Instr. in Path., Boston University School of Medicine, 7/1/40— 7/1/40-

Orrin Frank Kleckner (N. C.), Buffalo, Duke; med, stud., Vanderbilt, 1929-31; M.D., Duke (12/21/32); Int. and Ass't. Res. in Med., Millard Fillmore Hospital, Buffalo, N. Y., 7/1/33-2/26/35; Res. in Med., Pontiac General Hospital, Pontiac, Mich., 2/27/35-6/30/36; present address (in practice; G.) Seco. Ky.

G), Seco, Ky.

Frederick Robert Klenner (Pa.), St. Vincent, St. Francis, Catholic; M.D., Duke (3/21/36); Int., Goldsboro City Hospital, Goldsboro, N. C., 4/1-8/31/36; Moore County Hospital, Inc., Pinehurst, 9/1/36-6/30/37; and N. C. State Sanatorium, Sanatorium, N. C., 10/1/37-4/30/38; Ass't. Phys., Forsyth County Sanatorium, Winston-Salem, N. C., 5/10/38-3/31/39; present address (in practice; G), Reidsville, N. C.
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rotat., Brooklyn Jewish Hospital, 7/1/40-

Harold Hunter Kuhn (W. Va.), Duke; M.D., ibid. (6/3/40); Int. in Surg., Duke Hospital, 7/1/40-

Charles Larsen, Jr. (Fla.), Florida; M.D. Duke (3/18/39); Int., rotat., St. Lukes Hospital, Cleveland, 7/1/39—

Charles Wells Latchem (Iowa), St. Ambrose; Duke; M.D., Duke (12/17/38); Int., Stud. Health Serv., University of Virginia Hospital, 1/1-6/30/39; Int. in Med., Baltimore City Hospitals, 7/1/39-6/30/40; Res., rotating, Rex Hospital, Raleigh, N. C., 7/1/40—

^{*} See footnote, p. 69.

Jerome Lawrence (N. Y.), New York; M.D., Duke (3/18/38); Int., rotat., Welfare Hospital, Welfare Island, N. Y., 7/1/39-6/30/40, and Int., Meadow-

brook Hospital, Hempstead, N. Y., 7/1/40-

Charles Edward Leach (Md.), Johns Hopkins, Duke; M.D., Duke (6/8/35); Int., rotating, and Res. in Med., San Diego County General Hospital, 9/1/35-8/31/36; Ass't. Res. in Med., Duke Hospital, 9/1/36-8/31/37; and University of Cleveland Hospitals, 9/1/37-8/31/38; Res. in Cardiol., Massachusetts

Albert Francis Lee (Wash.), Washington, College of Puget Sound; M.D., Duke (12/18/37); Int., U. S. Public Health Service, U. S. Marine Hospital, Baltimore, Md., 7/1/37-6/30/38; Int. and Ass't. Res. in Obs. and Gyn., Duke Hospital, 7/1/38—

Lyndon Edmund Lee, Jr. (N. Y.), Virginia, Columbia; M.D., Duke (12/18/37); Int. in Tbc. and Heart, Blue Ridge Sanatorium and University Hospital, Charlottesville, Va., 1/1-6/30/38; Ass't. National Research Council Narcotics Division, Pondville Hospital, Wrentham, Mass., 7/1/38-6/30/40, and Graduate Ass't. in Med., Massachusetts General Hospital, Boston, 8/9/39-12/31/40; Int. in Obs. & Gyn., Duke Hospital, 1/1/41—
William Arthur Leff (N. I.) Examplin and Marchall. M.D. Duke (12/10/26).

William Arthur Leff (N. J.), Franklin and Marshall; M.D., Duke (12/19/36);

Int., rotating, Essex County Hospital for Contagious Diseases, Belleville,
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Joseph Michael Lesko (Conn.), Connecticut Coll. of Pharmacy, Michigan;
M.D., Duke (12/18/37); Jr. House Officer in Neuropsych., McLean Hospital, 1/10-4/2/38, and Int. and Ascit Reg. in Med. Bester, Development. pital, 1/10-4/2/38, and Int. and Ass't. Res. in Med., Boston Psychopathic Hospital, Boston, Mass., 4/1/38-8/31/40; Res., Jefferson Medical College Hospital, and Instr. in Neurol., Jefferson Medical College, 9/1/40—
vid Washington Lector (Non).

David Washington Lester (Kan.), Wichita; M.D., Duke (6/8/35); Int., rotating, and Res. in Med., San Diego County General Hospital, San Diego, Cal., 7/1/35-6/30/37; Res. in Neuropsychiatry, Compton Sanatorium, Compton, Cal., 7/1/37-6/30/39; Res. in Neuropsychiatry, Duke Hospital, 7/1/39-

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Thomas Norwood Lide (S. C.), Clemson; M.D., Duke (3/19/38); Int., rotat., Germantown Hospital & Dispensary, 3/20/38-6/30/39; Fellow in Path., Pennsylvania Hospital, 9/15/39-6/30/40; Ass't. Med. Officer in Surg., Walter Reed Hospital, Washington, D. C., 7/1/40—

Robert Carl Lincicome (Ohio), Marietta; M.D., Duke (12/17/38); Int., N. C. Sanatorium for the Treatment of Tuberculosis, Sanatorium, N. C., 1/1-2/28/39; Int. and Ass't Res. in Med., Duke Hospital, 3/1/39—

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Paul Warren Lucas (N. C.), Duke; M.D., ibid. (6/5/39); Int., Pub. Health Serv., and in Surg., U. S. Marine Hospital, Baltimore, 7/1/39—

^{*} See footnote, p. 69.

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pital, 9/1/39-8/31/40; Ass. in Fed., Tutis Medical School District Physician, and Boston Dispensary, 9/1/40—

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Health Serv., U. S. Marine Hospital, New Orleans, 7/1/39-6/30/40; Ist
Lieut., U. S. Army, Army Medical Center, Walter Reed General Hospital,
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Hospital, Atlanta, Ga., 7/1/39-6/30/40, and Res. in Med., Joseph H. Pratt
Hospital, Boston, 7/1/40—
Bernyrd Carlysle McLawhorn (S. C.), Furman: M.D. Duke (6/8/35): Int.

Hospital, Boston, 7/1/40—
Bernyrd Carlysle McLawhorn (S. C.), Furman; M.D., Duke (6/8/35); Int. and Res., rotating, Hospital of St. Vincent de Paul, Norfolk, Va., 7/1/35-6/30/37; present address (in practice; G). Greenville, S. C.

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7/31/37; present address (in practice; I), Winston-Salem, N. C.

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George Kenneth Mahl (Ohio), Ohio State, Duke; M.D., Duke (3/21/34); Int., N. C. Sanatorium for the Treatment of Tuberculosis, Sanatorium, N. C., 3/22-6/1/34; Int., rotating, Christ Hospital, Jersey City, N. J., 7/1/34-6/30/35; Int. in Obs. and Gyn., Duke Hospital, 7/1-11/20/35; Senior Int., rotating, Christ Hospital, 12/1/35-3/31/36; present address (in practice; G),

Ironton, O.

Paul Franklin Maness (N. C.), Wofford, Duke; M.D., Duke (12/16/39); Int.,

Grady Memorial Hospital, Atlanta, Ga., 1/1/40—
Samuel Jeremiah Margolin (N. Y.), Duke; M.D., ibid. (3/21/34); Int., rotating, Jersey City Medical Center, 3/22/34-6/30/35; Res. in Otolaryn., Beth Israel Hospital, 7/1/35-6/30/36; present address (in practice; OALR). Union City, N. J.

George Margolis (W. Va.), Johns Hopkins; M.D., Duke (6/3/40); Int. in Path., Duke Hospital, 7/1/40—

Lester Henry Margolis (W. Va.), Johns Hopkins; M.D., Duke (6/3/40); Int., Path., V. 7/10/30/40 and in Mod.

New York State Hospital, Ray Brook, N. Y., 7/1-9/30/40, and in Med., Duke Hospital, 10/1/40-

Donald Feige Marion (Pa.), Duke; M.D., ibid. (8/31/35); Int. in Med. and Ass't. and Assoc. in Gastro-Enterology, Henry Ford Hospital, Detroit, 9/1/35-

Anthony Ralph Marsicano (N. Y.), Long Island; M.D., Duke (3/20/37): Int. in Surg., McGuire Clinic, Richmond, Va., 3/21-6/20/37; Int., rotat., Bushwick Hospital, Brooklyn, N. Y., 7/1/37-6/30/39; present address (in practice; G), Coolidge, Ga.

^{*} See footnote, p. 69.

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James Risto Martin (Ala.), Vanderbilt, Alabama; med. stud., latter, 1933-35; M.D., Duke (3/20/37); Int. in Surg., Baltimore City Hospitals, 3/21-6/30/37; Int., rotat., University Hospitals, St. Louis University School of Medicine, 7/1/37-6/30/38; Int., Baltimore City Hospitals, 7/1/38-6/30/39, and Ass't. Res. in Surg., University Hospital, Baltimore, 7/1/39-6/30/40; Res. in Surg., Norfolk General Hospital, 7/1/40-

George Kemp Massengill, Jr. (N. C.), Duke; M.D., ibid. (6/13/36); Int. in Surg., Henry Ford Hospital, Detroit, 7/1/36-6/30/37; Senior Int. in Surg., Henry Ford Hospital, 9/1/37-8/31/38; Res., general, Martinsburg City Hospital, Martinsburg, West Va., 9/1/38-1/15/39; Sen. Int., Pub. Health Serv., U. S. Marine Hospital, Detroit, 1/16-7/31/39; Ass't. Surgeon, Pub. Health Service, Federal Reformatory, Chillicothe, Ohio, 8/1/39-6/30/40, and U. S. Correctional Institution, Tallahassee, Fla., 7/1/40—
Theodore Roosevelt Mattocks (N. C.), Duke; M.D., ibid. (12/17/38); Int., rotat., and Res. in Otolaryn. & Ophthal., Charleston General Hospital, Charleston, W. Va., 1/1/39—
Elijah Eugene Menefee, Ir. (Va.) Virginia, M.D., Duke (1/12/26) George Kemp Massengill, Jr. (N. C.), Duke; M.D., ibid. (6/13/36); Int. in

Elijah Eugene Menefee, Jr. (Va.), Virginia; M.D., Duke (6/13/36); Int., New York State Sanatorium, Raybrook, N. Y., 7/1-8/31/36; Int. in Med., Duke Hospital, 9/1/36-6/30/37; Research Fellow in Med. and Bact., Duke Medical School, 7/1/37-6/30/38; Res. in Tbc., Bellevue Hospital, New York City, 1/1/2/21/20. Letter in Med. and Bact. Duke University School of Medicine. 1/1-12/31/39; Instr. in Med. and Bact., Duke University School of Medicine, 1/1/40—

Harold Ellis Merkley (Utah), Brigham Young; M.D., Duke (12/17/38); Int., Denver General Hospital, 1/1/39-6/30/40; Res., Thomas D. Dee Memorial

Hospital, Ogden, Utah, 7/1/40-

Francis Poynter Meyer, Jr. (Fla.), St. Petersburg Junior; Duke; M.D., Duke (3/18/39); Int., Mound Park Hospital, St. Petersburg, Fla., 4/1-6/20/39, and rotat., Temple University Hospital, Philadelphia, 6/21/39—

Robert Felton Mikell (Fla.), John B. Stetson, Georgia; M.D., Duke (12/19/33); Int., Ass't. Res., Res. and Instr. in Ped., Strong Memorial Hospital, 9/1/33-6/30/36, and Int., Iola Sanatorium, Rochester, N. Y., 7/1/36-11/30/36; in practice, Lakeland, Fla., 2/24/37-8/31/38; Staff Physician, State Tuberculosis Sanatorium, Alto, Ga., 9/1/39—

Ben Neely Miller, Jr. (S.C.), Duke; M.D., ibid. (6/8/35); Int. and Ass't. Res. in Med., Duke Hospital, 7/1/35-6/30/37; Instr. in Phys. Diag. and Ass't. in Chem., University of Alabama Medical Schol, 9/1/37-6/30/38; present address (in practice; I), Columbia, S. C.
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Wardell Hardee Mills (N.C.), East Carolina Teachers, North Carolina; M.D., Duke (6/3/40); Int., rotat., St. Luke's Hospital, Cleveland, O., 7/1/40-

Oscar Peyton Moffiitt, Jr. (N. C.), High Point; Duke; M.D., latter (12/17/38); Int., Bay City General Hospital, Bay City, Mich., 1/1-6/30/39, and in Pub. Health Serv., U. S. Marine Hospital, Baltimore, 7/1/39—

Charles Francis Montgomery (Pa.), Drury, Missouri; med. stud., latter, 1929-31; M.D., Duke (3/22/33); Int. in Surg. and Ass't. Res. and Res. in Orth. and Surg., Henry Ford Hospital, Detroit, Mich., 9/1/33-8/31/37; Volun. Ass't. in Otolaryn., Duke Hospital, 9/1-12/31/37; present address (in practice; S), Electric Bldg., Houston, Texas.
Frank Richardson Moore (N. C.), Duke; M.D., ibid. (6/7/37); Int., Woman's

Hospital, Baltimore, 7/1/37-6/30/38; Ass't. Res and Res. in Med., Hospital

^{*} See footnote, p. 69.

for Women of Maryland, Baltimore, 7/1/38-3/31/40; Res., Hamilton County Tuberculosis Hospital, Cincinnati, O., 4/1/40—

Osinty Tuberculosis Hospital, Chichidate, C., 471/40-Arch Sherrod Morrow (N. C.), Davidson; M.D., Duke (12/19/36; Int., rotating, Church Home and Infirmary, Baltimore, 12/28/36-6/30/37; and Presbyterian Hospital, Chicago, 7/1/37-10/31/38; Instr. in Phys. Diag., University of Alabama School of Med., 12/1/38-6/30/40; Res., Riverside Hospital, Jacksonville, Fla., 7/1/40-

Rufus Clegg Morrow, Jr. (Mexico), Davidson; M.D., Duke (12/17/38); Honorary Research Fellow in Physiol., 3/1-6/30/39, and Int. in Path., Yale University School of Medicine, 7/1/39-6/30/40; Int. in Surg., Henry Ford Hamiltonian Mich. 0/1/40

Hospital, Detroit, Mich., 9/1/40-

Henry George Morton (Fla.), Duke; M.D., ibid. (12/18/37); Int. and Ass't. Res. in Ped., Duke Hospital, 1/1-8/31/38; Int. in Med., N. Y. Postgraduate Hospital, 10/1/38-8/31/40; Ass't. Res. in Ped., Duke Hospital, 10/1/40—Vince Moseley (S. C.), Clemson, Duke; M.D., Duke (12/19/36); Int., N. C. State Sanatorium, Sanatorium, N. C., 1/1-4/15/37; and Sydenham Hospital, Baltimore, 5/1-6/30/37; Int. and Ass't. Res. in Med., Duke Hospital, 7/1/37-3/31/39; Fellow in Derm. & Syphil., 4/1-12/31/39, Voluntary Ass't. in Bact., 1/1-3/31/40, and Ass't. in Physiol. and Phys. Diag., Duke Med. School, 4/1-6/30/40; Fellow in Gastroenteral, and Cardiol. University of School, 4/1-6/30/40; Fellow in Gastroenterol. and Cardiol., University of Pennsylvania Hospital, 7/1/40-

Lyle Alfred Moser (Pa.), Keystone Teachers; Lebanon Valley; M.D., Duke 6/5/39; Int., rotating., Pittsburgh Medical Center, 7/1/39—

John Edwards Moss (Ala.), Duke; M.D., ibid. (6/3/40); Int. in Med., Duke Hospital, 6/4-6/30/40, and on Private Med. Serv., The Johns Hopkins Hos-

pital, 9/1/40-

Robert McGee Mullen, II (Pa.), Pittsburgh; M.D., Duke (9/1/34); Int. in Path, Baltimore City Hospitals, 9/1/34-8/31/35; Int. in Obs., Johns Hopkins Hospital, 9/1/35-8/31/36, and Boston Lying-in Hospital, 9/1-12/31/36; present address (in practice; ObG), Physician-in-Charge, Woman's Hospital, Pasadena, Cal.

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Henry Ten Eycke Munson (Mich.), Wayne; Duke; M.D., Duke (6/5/39);
Int., rotating, Harper Hospital, Detroit, 6/26/39-6/30/40; Ass't. Res. in

Otolaryn., University of Iowa Hospital, Iowa City, 7/1/40—
Brodie Crump Nalle, Jr. (N. C.), North Carolina; M.D., Duke (6/5/39);
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Philip Naumoff (Pa.), Pittsburgh; M.D., Duke (6/7/37); Int., rotating, University of Pittsburgh Hospital, 7/1/37-6/30/38; Res., general, Bradford Hospital, Bradford, Pa., 8/1/38-8/31/39; present address (in practice; G),

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^{*} See footnote, p. 69.

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Robert H. Nickau (N. J.), North Carolina State; M.D., Duke (6/5/39; Int.,

rotating, Jersey City Hospital, 7/1/39— Richard Elwood Nitschke (N. Y.), Duke; M.D., ibid. (6/7/37); Int. in Med., United Hospital, Port Chester, N. Y., 7/1/37-6/30/38; Int. in Surg., Roose-

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Pat Ireland Nixon, Jr. (Tex.), Texas; M.D., Duke (6/5/39); Int., rotating, Baltimore City Hospitals, 7/1/39-6/30/40; House Officer, Walter Reed Hospital, Washington, D. C., 7/1/40—
Robert Read Nixon (Tex.), Texas, St. Mary's of San Antonio, Virginia; M.D., Duke (6/3/40); Int., rotating, University Hospitals, Iowa City, 7/1/40

7/1/40-

Carlton Lee Ould (Va.), Roanoke, Duke; M.D., Duke (3/20/37); Int. in Med., Duke Hospital, 3/21/37-6/30/38; Int. in Path., Rhode Island Hospital, Providence, R. I., 7/1/38-6/30/39; Int. and Ass't. Res. in Radiology, Duke Hospital, 9/1/39-

Francis Leroy Owens (Pa.), Pittsburgh; M.D., Duke (9/1/34); Int. in Surg., Duke Hospital, 9/1-12/31/34; Int., rotating, Moore County Hospital, Inc., Pinehurst, N. C., 1/6/35-8/31/36; present address (in practice; G), Pinehurst, N. C.

hurst, N. C.
Daniel Jack Pachman (N. Y.), New York, North Carolina; M.D., Duke (9/1/34); Int. in Ped., University of Chicago Clinics, 9/1/34-8/31/35; Int. in Ped., New York Hospital, 9/1/35-6/30/36; Res. in Ped., Duke Hospital 7/1/36-6/30/40; present address (in practice; Pd), 2376 East 71st St., Chicago, Ill. Gilbert Matthewson Palen (N. J.), Hamilton; M.D., Duke (6/5/39); Int., rotating and Res. in Med., Hahnemann Hospital, Phila., 7/1/39—

Joseph Freeman Paquet (Ore.), Oregon, Idaho, Duke; M.D., Duke (3/16/40); Int., N. C. Sanatorium for the Treatment of Tuberculosis, Sanatorium, N. C., 3/17-5/31/40, and rotating and in Med., Lakeside Hospital, Cleveland, O., 6/15/40—

Edward Frost Parker, Ir. (S. C.), South Caroling M.D., D. 1, (2012)

Edward Frost Parker, Jr. (S. C.), South Carolina; M.D., Duke (9/2/33); Int. in Surg., Strong Memorial Hospital, Rochester, N. Y., 9/3/33-6/30/34; and Vanderbilt Univ. Hospital, 7/1/34-6/30/35; Ass't. Res. in Surg., University of Virginia Hospital, 7/1/35-6/30/36; Ass't. in Surg., Vanderbilt University Medical School; Ass't. Res. and Res. in Surg., Vanderbilt University Hospital, 7/1/36-6/30/39; present address (in practice; S), 70 Hasell St., Charleston S. C.

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Philip Brower Parsons (Pa.), Duke; M.D., ibid., (3/21/36); Int. in Radiol. and Surg., and Int. and Ir. Ass't. in Path., and Res. in Radiol., Duke Hospital, 3/22/36-3/31/40; present address (in practice; R), Professional Bldg., Charlote, N. C.

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6/30/40; present address (in practice; Pd), Goldsboro, N. C.

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6/30/40; present address (in practice; G), Grundy, Va.

^{*} See footnote, p. 69.

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William Phillips (Ohio), Ohio State; M.D., Duke (9/5/36); Int., rotat., Harper Hospital, 9/20/36-9/19/37; Ir. Res. in Path., Detroit Receiving Hospital, Detroit, 10/18/37-6/30/38; Sr. Int. in Med., Harper Hospital, Detroit, 6/1-9/30/38; present address (in practice; G), West Toledo, Ohio.

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rotating, Pittsburgh Hospital, 7/1/36-6/30/57; Int. and Kes., Moore County Hospital, Inc., Pinehurst, N. C., 7/1/37—
Marion Timothy Plyler, Jr. (N. C.), North Carolina State, Duke; M.D., ibid. (12/19/33); Int., N. C. Sanatorium for the Treatment of Tuberculosis, Sanatorium, N. C., 1/1-6/1/34; Int., rotating, Hospital of St. Vincent de Paul, Norfolk, Va., 7/1/34-6/30/35; Int., N. C. Sanatorium, 7/1/35-3/31/36; Ass't. Director, N. C. Public Health Service, 5/1/36-4/30/37; present address (in practice; G), Whaleyville, Va.
Pierre Patillo Poole (S. C.), John B. Stetson; M.D., Duke (6/3/40); Int., rotat., Charity Hospital, New Orleans, 7/1/40—
Raymond Woodrow Postlethwait (W. Va.). West Virginia; med. stud., ibid.,

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William Flynn Powell (N. C.), Princeton; M.D., Duke (12/18/37); Int., Baker Sanatorium, Lumberton, N. C., 2/24-6/30/38; Int., U. S. Pub. Health Serv., Marine Hospital, 7/1/38-6/30/39, and Res. in Ear, Eye, Nose & Throat, Touro Infirmary, New Orleans, La., 7/1/39-6/30/40; Ass't. Surg., U. S. Marine Hospital, Washington, D. C., 7/15/40—

John Fairman Preston, Jr. (Korea), Davidson; M.D., Duke (6/8/35); Int., rotating, Piedmont Hospital, Atlanta, Ga., 7/1/35-6/30/36, and in Path., Duke Hospital, 7/1/36-6/30/37; Gen'l. Ass't., Alexander Hospital, Soonchun, Korea, 9/1/37-8/31/39; present address (in practice; G), Kwanju,

Leo Bernard Provinsky (Pa.), Grove City; M.D., Duke (12/19/36); Int., City Hospital, Martinsburg, W. Va., 12/23/35-12/23/37; Int. and Res. in Med., Duval County Hospital, 1/1/38-6/30/39, and present address (in practice;

G), Jacksonville, Fla.

Robert Harry Pudenz (Ohio), Dayton; M.D., Duke (6/8/35); Voluntary Ass't. in Neurol., National Hospital, London, England, 7/1-12/15/35; Int. in Surg., Duke Hospital, 1/1-9/30/36, and in Neuro-Surg., Royal Victoria Hospital, 10/1/36-12/31/38; Fellow in Neuro-Path., Montreal Neurological Institute, 1/1-12/31/39, and Res. in Neuro-Surg., Royal Victoria Hospital, Montreal, Canada, 1/1/40—

Lawrence Augustus Pyle, Jr. (D. C.), Maryland; Washington; M.D., Duke (6/5/39); Int. and Ass't. Res., Central Dispensary and Emergency Hos-

pital, Washington, D. C., 6/15/39— Richard Zimri Query, Jr. (N. C.), Davidson; M.D., Duke (9/1/34); Int., rotating, Henry Ford Hospital, Detroit, 9/1/34-8/31/35; Ass't. Res. and Res. in Med., Duke Hospital, 10/1/35-6/30/38; present address (in practice; I),

Charlotte, N. C.

Raymond Hamilton Ralston (Pa.), State Teachers, Geneva; M.D., Duke (9/1/34); Int., rotating, Postgraduate Hospital, Univ. of Pennsylvania, 9/1/34-6/30/36; Med., R. O. C., Carlisle, Pa., 7/5-7/18/36; present address (in practice; G), Lakeland, Fla., and on staff of Dept. of Med., Morrell

Memorial Hospital, Lakeland, Fla.

James Sidney Raper (N. C.), Duke; M.D., ibid. (9/3/38); Int., Rocky Mount Sanatorium, Rocky Mount, N. C., 9/4/38-2/28/39, N. C. Sanatorium for

^{*} See footnote, p. 69.

the Treatment of Tuberculosis, Sanatorium, N. C., 3/1-5/31/39, and rotat-

ing, Germantown Hospital, Germantown, Pa., 7/1/39-

Lester Paul Rasmussen (Utah), Snow, Utah; med. stud., latter, 1931-33; M.D., Duke (6/8/35); Int., rotating, Salt Lake General Hospital, 7/1/35-6/30/36; Int., University of Chicago Clinics, 7/1/36-6/30/37, and Ass't. Res. in Ped., Duke Hospital, 7/1/37-6/30/38; present address (in practice;

Pd), Boston Bldg., Salt Lake City, Utah. Howard Lorenzo Reed (N. Y.), Duke; M.D., ibid. (9/5/36); Int., N.C. State Sanatorium, 10/1-11/30/36; Int. in Med., Roosevelt Hospital, New York City, 1/1/37-6/30/39; present address (in practice; G), 136 East 64th St.,

New York City.

New York City.

Paul Gerhard Reque (N. C.), Duke; M.D., ibid. (9/2/33); Int. and Ass't. Res. in Med., Duke Hospital, 9/1/33-6/30/35; Ass't. Res. in Med., Lakeside Hospital, Cleveland, O., 7/1/35-6/30/36; Instr. and Med. Ass't., Yale University, 7/1/36-6/30/38; in practice, Brooklyn, N. Y., and Clin. Ass't. Dermatologist, New York Post Graduate Hospital, 7/1/38-6/30/40; Instr. in Med., Derm. and Syphil., Duke Medical School, 7/1/40—

Edwin Tyson Ricketts (N. Y.), Georgia School of Technology, Millsaps, Duke; M.D., Duke (3/21/36); Int., N. C. State Sanatorium, 3/22-5/12/36; Int., rotating, Central Dispensary & Emergency Hospital, Washington, D. C., 7/1/36-6/30/37; Int. in Med., Church Home and Infirmary, Baltimore, 7/1/37-6/30/38; Ass't. Res. in Biochem., Duke Medical School, 7/1/38-1/31/39; Res. in Med., Gorgas Hospital, Ancon, Panama Canal Zone, 2/1-7/31/39; Physician, Chiriqui Land Co. Hospital, Puerto Armuelles, Republic of Panama, 8/15/39 public of Panama, 8/15/39-

Louis Carroll Roberts (N. C.), Davidson; M.D., Duke (9/2/33); Int. in Surg. and in Path., Ass't. Res. in Surg. and Res. in Urol., Duke Hospital, 9/1/33-

6/30/40; present address (in practice; U), Durham, N. C.

Rufus Winston Roberts, Jr. (Ala.), Duke; M.D., ibid. (6/3/40); Int. in Ped.,

Duke Hospital, 7/1/40-

Dennis Hardesty Robinson (W. Va.), W. Va.; med. stud., ibid., 1929-31; M.D., Duke (3/21/35; Int., rotating, Baker Sanatorium, Lumberton, N. C., 4/15/36-6/30/36; Res., rotating, Huntington Memorial Hospital, 12/1/36-6/30/37, and Physician, National Elks Home, Bedford, Va., 7/1/37-12/31/37;

present address (in practice; G), Bedford, Va.

Frank Hurd Robinson, Jr. (N. Y.), Michigan; M.D., Duke (6/8/35); Int. in Med., Duke Hospital, 7/1/35-6/30/36; Field Work, U. S. P. H. Serv., Mecklenburg Co., N. C., 7/1-12/31/36; Int. in Pcd., Johns Hopkins Hospital, 1/1-6/30/37; Ass't. Res. in Med., Rockefeller Institute Hospital, New York City, 7/1/37-6/30/39; in practice; G, Jamestown, N. Y., 7/1-11/21/39. (Deceased 11/22/39.)

Ira Stanley Ross (N. J.), Duke; M.D., ibid. (6/6/38); Int. in Ped., Duke

Hospital, 7/1/39-

Weldon Troh Ross (Ore.), Oregon; M.D., Duke (6/6/38); Int. in Med., University of Chicago Clinics, 7/1/38-6/30/39; Ass't. Res. in Surg., Church

Home & Infirmary, Baltimore, 7/1/39---

Kenneth Brown Rothey (Pa.), Pittsburgh; med. stud., W. Va., 1929-31; M.D., Duke (12/19/33; Int., rotating, Fitkin Memorial Hospital, Neptune, N. J.; 1/1/34-6/30/35; Res. in Surg. and Obs., Somerset Hospital, Somerville, N. J., 7/1/35-3/3/36; in practice; G, Elizabeth, Pa., 9/1/37-6/17/39.

(Deceased, 6/17/39.)

Nathan Ruby (N. J.), New York, Virginia; M.D., Duke (9/2/33); Int. in Med., Sinai Hospital, Baltimore, Md., 7/1/33-6/30/34; Ass't. Res. and Res. in Ped., Jewish Hospital, Brooklyn, 7/1/34-6/30/37; Int., Res. in Communicable Dis., Kingston Ave. Hospital, Brooklyn, 7/1-12/31/37; present address (in practice; Pd), 1810 Avenue N, Brooklyn, N. Y., 1/1/38, and Ass't. on Ped. Serv., Jewish Hospital, Brooklyn, N. Y., 7/6/38—

^{*} See footnote, p. 69.

Edwin Macrae Rucker (Va.), Randolph-Macon; M.D., Duke (9/1/34); Int. in Med., and Int., Ass't. Res. and Res. in Obs. & Gyn., Duke Hospital, 9/1/34-6/30/40; present address (in practice; ObG), Medical Arts Bldg.,

Richmond, Va.

Socrates Rumpanos (Ala.), Alabama; med. stud., ibid., 1933-35; M.D., Duke (3/20/37); Int. in Med., Baltimore City Hospitals, 3/25-6/25/37; Int., rotating, University of Maryland Hospital, Baltimore, 7/1/37-6/30/38; Int., rotating, City Hospital, Mobile, Ala., 7/1/38-6/30/39; present address (in practice; G), Mobile, Ala.

Ralph Wayne Rundles (Ind.), De Pauw, Cornell Graduate; M.D., Duke (6/3/40); Int. in Med., University Hospital, Ann Arbor, Mich., 7/1/40—

Robert Thornton Rutherford, Jr. (N. C.), Duke; M.D., ibid. (12/16/39); Int. in Ped., Strong Memorial Hospital, Rochester, N. Y., 1/1-6/30/40, and in

Med., University of Virginia Hospital, 7/1/40— William James Rysanek, Jr. (Md.), Johns Hopkins; M.D., Duke (3/18/39; Int., Woman's Hospital, 7/1/39-6/30/40, and rotating, St. Joseph's Hos-

pital, Baltimore, 7/1/40-

James Wilbur Sachs (Md.), Duke; M.D., ibid. (6/6/38); Int., Public Health Service, U. S. Marine Hospital, Seattle, Wash., 7/1/38-6/30/39, and Medical Center for Federal Prisoners, Springfield, Mo., 7/1-12/31/39; Int. in Otolaryn. & Ophthal., Duke Hospital, 1/1/40-

Clarence Joseph Sapp (Ga.), Duke; M.D., ibid. (6/3/40); Int. in Surg., Duke

Hospital, 7/1/40-

Logan Everette Sawyer (N. C.), Duke; M.D., ibid. (3/18/39); Int., Union Memorial Hospital, Baltimore, 3/23-6/23/39, in Obs. and Ped., Duke Hospital, 7/1/39-6/30/40, and in Med., Baltimore City Hospitals, 7/1/40-

Louis John Saxe (Ohio), John Carroll, Duke; M.D., ibid. (9/1/34); Int. Stud. Health Serv., Duke Hospital, 9/1/34-6/30/35; Res. in Neuro. and Psychiatry, Univ. of Virginia Hospital, 7/1/35-9/22/36; Ass't. Sup't. and Sup't., Arizona State Hospital, and Consulting Neurologist and Psychiatrist,

U. S. Veterans Administration, Phoenix, Ariz., 3/1/37-

Eugene Neston Scadron (N. Y.), Dartmouth, Yale; M.D., Duke (9/1/34); Fellow in Med. and Int. in Surg., Duke Hospital, 10/1/34-6/30/36; Int. and Research Ass't. in Obs. & Gyn., Bellevue Hospital, New York City, 7/1/36-2/28/38; Ass't. Res. and Res., Boston Lying-in Hospital, Boston, 3/1/38-, Instr. in Obs. & Gyn., Bellevue Hospital, 1/1/40—, and in practice; ObG, 993 Park Ave., New York City.

Paul Welstead Schanher, Jr. (Mich.), Duke; M.D., ibid. (12/17/38); Int. in Med., Baltimore City Hospitals, 1/1-6/30/39; Int. and Ass't. Res. in Surg.,

Duke Hospital, 7/1/39-

Ralph Ernest Schmidt (Pa.), Pittsburgh; M.D., Duke (6/8/35); Int., rotating, Hamot Hospital, Erie, Pa., 7/1/35-6/30/36; Int. in Neuro-Surg., Massachusetts General Hospital, Boston, 7/1-9/30/36; Int., gen'l., House of Good Samaritan, Boston, 4/1-6/30/37; present address (in practice; G), Wesleyville, Pa., and Ass't. in Med., Hamot Hospital, Erie, Pa.

Thomas Gilbert Schnoor (Calif.), California; Nevada; M.D., Duke (12/17/38); Int. in Surg., Duke Hospital, 2/1-5/15/39, Stanford University Hospital, 7/1/39-6/30/40; Int. in Otolaryn. & Ophth., Duke Hospital, 7/1/40—William Schulze (La.), Tulane, Richmond; M.D., Duke (6/13/36); Ass't. Res. in Med., Mass. Gen'l. Hospital, July, 1938-Sept., 1938; Int., Ass't. Res. and Res. in Med., Duke Hospital, 7/1/36-6/30/40; Instr. in Med., Duke Univ. School of Medicine, 7/1/40. Univ. School of Medicine, 7/1/40-

William Osce Self (S. C.), Furman; M.D., Duke (6/7/37); Int., Johns Hopkins Hospital, 9/1/37-8/31/38, and Ass't. Res. in Surg. Ass't. and Assoc.

Surgeon, Palmerton Hospital, Palmerton, Pa., 9/1/38-

Walter Eugene Sharpe, Jr. (N. C.), Duke; M.D., ibid. (9/1/34); Int. and Ass't. Res., rotating, and Ass't. Res. in Urol., Henry Ford Hospital, De-

^{*} See footnote, p. 69.

troit, 9/1/34-2/28/37; Ass't. Surg., U. S. Public Health Serv., Marine Hospital, Detroit, 3/1/37-5/31/39, and U. S. Quarantine Station, Los Angeles, 6/1/39-6/30/40; Passed Ass't. Surg., Ü. S. Public Health Serv.,

Marine Hospital, Evansville, Ind., 7/1/40—
James Edward Sheehy (N. Y.), Notre Dame; M.D., Duke (6/7/37); Int., rotating, and Int. and House Officer, Ear, Eye, Nose and Throat, Hospital of St. Vincent de Paul, New York City, 7/1/37-2/29/40; Res. in Ophthal., Brooklyn Eye & Ear Hospital, 3/1/40-

Richard Allen Shields, Jr. (Del.), Duke; M.D., ibid. (6/3/40); Int., rotating, Germantown Hospital and Dispensary, Germantown, Phila., Pa., 7/1/40—Ralph Kenneth Shields (Pa.), Pennsylvania State; M.D., Duke (8/31/35); Int. and Sr. Int. in Med., Henry Ford Hospital, Detroit, 9/1/35-8/31/38;

present address (in practice; I), Bethlehem, Pa.
Burton Michael Shinners (N. Y.), Notre Dame; M.D., Duke (9/5/36); Int. in Med., Henry Ford Hospital, 9/1/36-8/31/37; Int. in Ped., Duke Hospital, 9/18-12/31/37; Int. in Neuro-Surg., Massachusetts General Hospital, Boston, 1/1-6/30/38; Ass't. Res. in Med., Baltimore City Hospitals, 9/1/38-1/31/39; Res. in Neurol., Massachusetts Gen'l. Hospital, Boston, 2/1/39-6/30/40; Res. Physician, McLean Hospital, Waverly, Mass., 7/1/40—Irving Michael Siegel (N. Y.), Lehigh; M.D., Duke (9/1/34); Int., rotating, and Admitting Phys., Kings County Hospital, Brooklyn, N. Y., 9/1/34-9/30/36; present address (in practice; G), 254 West 79th St., New York

City.

George Addison Silver, III (N. J.), Guilford College; M.D., Duke (9/4/37); Int. in Ped., Duke Hospital, 9/1/37-6/30/38; Int., rotating, St. Francis Hospital, Trenton, N. J., 7/1/38-6/30/39, and in Obs., Margaret Hague Maternity Hospital, Jersey City, N. J., 7/1/39-6/30/40; present address (in practice; G), Hightstown, N. J., Mullacher, D. L. Simpson, (N. J.)

Paul Ervin Simpson (N. J.), Muhlenberg, Duke; M.D., Duke (3/16/40); Int., rotating, Baltimore City Hospitals, 3/17-6/30/40, and in Med., Long Island College Hospital, Brooklyn, N. Y., 7/1/40—

Albert Randall Smith (Wash.), Wisconsin; med. stud., ibid., 1929-32; M.D., Duke (3/21/34); Int. in Path. and in Surg., Duke Hospital, 3/22/34-6/30/35; Int. and Res. in Orth. Surg., State University of Iowa, University Hospitals, 7/1/35-6/30/39; Assoc. in Orth. Surg., State University of Iowa, Children's Hospital, 7/1/39-

John Goodrich Smith (N. C.), North Carolina; M.D., Duke (12/18/34); Int., rotating, Goldsboro City Hospital, Goldsboro, N. C., 1/1-6/30/35, and University Hospital, Philadelphia, 7/1/35-6/30/37; Int. in Med., Park View

Hospital, and in practice; I, Rocky Mount, N. C., 7/1/37— Robert Cathcart Smith (S. C.), Citadel; M.D., Duke (6/5/39); Int. and Ass't. Res. in Med., Baltimore City Hospitals, 7/1/39—

George Arthur Sotirion (N. H.), Johns Hopkins; M.D., Duke (3/16/40); Int. in Med., Hospital for the Women of Maryland, 4/1-6/30/40, and rotating, Cincinnati General Hospital, 7/1/40-

Ross Clarence Speir, Jr. (Ala.), Duke; M.D., ibid. (6/3/40); Lieut., U. S. Naval Hospital, San Diego, Calif., 7/1/40—

Naval Hospital, San Diego, Calit., //1/40—
William Thornton Spence (Pa.), Lafayette, Wisconsin, Pennsylvania State, Alabama; M.D., Duke (3/21/36); Int., N. C. State Sanatorium, Sanatorium, N. C., 4/1-6/1/36; Int., rotating, Mercy Hospital, Pittsburgh, Pa., 7/1/36-6/30/37; Ass't. Res. in Surg. and Path., Memorial Hospital, New York City, 7/1-12/15/37; Ass't. Phys. and Surg., Western N. C. Sanatorium for the Treatment of Tuberculosis, Black Mountain, N. C., 12/16/37-2/28/39; Ass't. Res. in Surg., and Res. in Neurol. Surg., Bellevue Hospital, New York City, 3/1/30— New York City, 3/1/39-

William Charles Spring, Jr. (N. J.), Wisconsin; M.D., Duke (9/5/36); Int. in Med., University Hospitals of Cleveland, 10/15/36-2/28/38; Ass't. Res. in Med., Lakeside Hospital, Cleveland, 3/1-7/31/38; Ass't. Res., Thorndike

^{*} See footnote, p. 69.

Memorial Laboratory, Boston, 8/15/38-8/31/39; Fellow, 9/1/39-8/31/40, and Assistant, Rockefeller Institute for Med. Research, Princeton, N. J.,

Sidney Stark (N. Y.), New York; M.D., Duke (6/5/39); Int., rotating, Metropolitan Hospital, New York, 7/1/39—
Glenn Emory Stayer (Fla.), Pittsburgh, Columbia; M.D., Duke (12/18/34); Int., rotating, Touro Infirmary, New Orleans, 12/19/34-6/30/35; Int., Ass't. Res. and Res. in Otolaryn., Duke Hospital, 7/1/35-6/30/38; Ophthalmologist for State Blind Commission, Raleigh, N. C., 7/1-9/30/38; present address (in president Odd II). Supports Elle

dress (in practice; OALR), Sarasota, Fla.

Howard Paul Steiger (Pa.), Bucknell, Duke; M.D., Duke (12/16/39); Int., Georgia Baptist Hospital, Atlanta, 1/1-6/30/40, and in Pub. Health, U. S. Marine Hospital, New Orleans, 7/1/40—

Joseph Blackburn Stevens (W. Va.), Davidson; M.D., Duke (12/20/35); Int. in Path., Int. and Ass't. Res. in Med., and Ass't. Res. in Neurol., Duke Hospital, 1/1/36-6/30/40; present address (in practice; I), 424 Jefferson Standard Bldg. Greensboro, N. C.

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Ralph Richards Stevenson (Utah), Utah; med. stud., ibid., 1928-30; M.D., Duke (3/19/32); Int. in Surg., Strong Memorial Hospital, Rochester, N. Y., Duke (3/19/32); Int. in Sury., Strong Methorial Hospitals, Occlester, N. Y., 7/1/32-6/30/33; Ass't. Res. in Path., Baltimore City Hospitals, 9/1/33-2/4/34; Contract Surgeon, Walter Reed Hospital, Washington, D. C., 1/29-8/22/34; Res. in Path., Baltimore City Hospitals, 9/1/34-6/30/35; Ass't. in Surg., Walter Reed Hospital, 7/1/35-6/30/36; present address (in practice; G), 3131 Sixteenth St., N. W., Washington, D. C. Charles Paul Stevick (N. C.), Duke; M.D., ibid. (9/5/36); Int. in Ped., Johns Hopkins Hospital, 9/6-12/31/36, and Duke Hospital, 1/1-6/30/37; Int. and Ass't. Res. in Ped., Children's Hospital, Cleveland, 7/1/37-6/30/39; present address (in practice; G), Deleo N. C.

present address (in practice; G), Delco, N. C.

Robert Boyd Stith, Jr. (S. C.), Duke; M.D., ibid. (6/8/35); Int. in Med.,
Duke Hospital, 7/1/35-6/30/36; and Cornell Medical Center, New York City, 7/1/36-6/30/37; present address (in practice; G), Florence, S. C.

City, 7/1/36-6/30/37; present address (in practice; G), Florence, S. C. Wray Donald Storey (Pa.), Geneva; M.D., Duke (3/18/39); Int., Goldsboro City Hospital, Goldsboro, N. C., 4/1-5/31/39, and rotating, Washington Hospital, Washington, Pa., 7/1/39-6/30/40; Ass't. Res. in Path., University Hospital, Little Rock, Ark., 7/1/40—

Murdo Eugene Street, Jr. (N. C.), Duke, North Carolina; med. stud., latter, 1933-35; M.D., Duke (3/20/37); Int., Moore County Hospital, Inc., Pinehurst, N. C., 3/25-6/20/37; Int., Public Health Service, U. S. Marine Hospital, Norfolk, Va., 7/1/37-4/20/38; Ass't. Surgeon, U. S. Marine Hospital, Savannah, Ga., 7/1/38-6/30/39; Ass't. Surge, U. S. P. H. S., U. S. S. Ingham, Navy Yard, Boston, 7/1/39—

Benjamin Anderson Strickland, Ir. (N. C.), Mars Hill, Wake, Forest, M.D.

Benjamin Anderson Strickland, Jr. (N. C.), Mars Hill, Wake Forest; M.D., Duke (12/19/33); Int., Woman's Hospital, Baltimore, 12/20/33-8/31/34; Ass't. Res., U. S. Marine Hospital, Baltimore, 9/1/34-6/30/35; Ass't. Surg., Headquarters, Third Corps Area, Baltimore, 7/1/35-6/30/36; Ist Lieut., and Capt., Edgewood Arsenal, Md., 7/1/36-8/6/38, and Capt., Med. Corps, U. S. Army, Walter Reed Gen'l Hospital, Washington, D. C., 8/7/38-

George Merritt Stroud (Pa.), Duke; M.D., ibid. (3/19/38); Int. and Ass't. Res. in Med., Duke Hospital, 3/20/38-5/31/40; Ass't. Res. in Derm. and

Syphil., Lakeside Hospital, Cleveland, O., 6/15/40—
Charles Woodrow Styron (N. C.), North Carolina State; M.D., Duke (6/6/38); Int. in Ped., Duke Hospital, 7/1/38-3/31/39; and in Med., Boston City Hospital, 4/1/39-10/14/40; Fellow in Med., George F. Baker Clinic, New England Deaconess Hospital, Boston, 10/15/40-

Doris Lee Surles (N. C.), Duke; M.D., ibid. (6/5/39); Int. in Med., Baltimore City Hospitals, 7/1/39-6/30/40, and rotating, St. Mary's Hospital,

East St. Louis, Ill., 7/1/40—

^{*} See footnote, p. 69.

Hugh Franklin Swingle, Jr. (Tenn.), Virginia, Tennessee, State Teachers; med. stud., Tenn., 1932-33; M.D., Duke (11/30/35); Int. in Med., Duke Hospital, 12/1/35-9/30/36; Fellow in Surg., Mayo Clinic, Rochester, Minn.,

10/1/36-7/31/40; present address (in practice; S), Johnson City, Tenn. Victor Leo Szanton (N. Y.), Alabama; M.D., Duke (6/13/36); Int., rotating, Watts Hospital, Durham, N. C., 7/1/36-6/30/37; Int. in Ped., Jewish Hospital, Brooklyn, N. Y., 7/1/37-6/30/38; Ass't. Res. and Res. in Ped., Mt. Sinai Hospital, New York City, 7/1/38-6/30/39; Camp Physician, Camp Wigwam, Harrison, Me., 7/1-8/31/39; in practice, Deal Island, Md., 10/1/39-5/31/40; present address (in practice; G), Bridgton, Me.

10/1/39-5/31/40; present address (in practice; G), Bridgton, Me.
Abraham Jack Tannenbaum (N. J.), Ohio State, Duke; M.D., Duke (6/8/35);
Int., rotating, St. Leo's Hospital, Greensboro, N. C., 7/1/35-6/30/36, and
Gallinger Municipal Hospital, Washington, D. C., 7/1/36-6/30/37; present
address (in practice; G), 614 W. Market St., Greensboro, N. C.
Harvey Grant Taylor (Calif.), San Jose State, Stanford; M.D., Duke
(3/16/40); Int. in Ped., Duke Hospital, 3/17/40—
Waller Littlepage Taylor, Jr. (N. C.), Duke; M.D., ibid., (9/2/33); Int., rotating, 'Hospital of St. Vincent de Paul, Norfolk, Va., 9/3/33-6/30/34;
Ass't. Res. in Med., Memorial Hospital, Richmond, Va., 7/1/34-6/30/35;
present address (in practice: G). Virginia Beach, Va. present address (in practice; G), Virginia Beach, Va. Joseph Dimmick Thetford (Ala.), Tulane; Alabama; M.D., Duke (12/17/38);

Int. and Ass't. Res. in Med., Duke Hospital, 1/1/39-

Robert Hendon Thomason (Tex.), Sam Houston Teachers, Agricultural & Mechanical College of Texas, Duke; M.D., ibid. (8/31/35); Int. in Ped., Duke Hospital, 9/1/35-6/30/36; Ass't. Res. in Med., Baltimore City Hos-

pitals, 7/1/36-6/30/38; present address (in practice; G), Huntsville, Texas. Edwin Hale Thornhill (W. Va.), Duke; M.D., ibid. (3/19/38); Int. in Surg., Duke Hospital, 4/1-6/30/38; Int., rotat., Church Home and Infirmary, Baltimore, 7/1/38-6/30/39; Int. and Ass't. Res. in Otolaryn. & Ophthal., Duke

Hospital, 7/1/39-

Patti Marie Sills Thornhill (N. C.), Duke; M.D., ibid (6/3/40); Int. in

Ped., Duke Hospital, 7/1/40-

John Redden Timmons (S. C.), South Carolina; Duke; M.D., Duke (6/5/39); Int. and Ass't. Res. in Med., Henry Ford Hospital, Detroit, Mich, 7/1/39—William Trachtenberg (N. C.), North Carolina; Harvard; M.D., Duke

(3/18/39); Int., Goldsboro City Hospital, Goldsboro, N. C., and rotating, Charity Hospital, New Orleans, 7/1/39—
Eulyss Robert Troxler (N. C.), Duke; M.D., ibid. (6/6/38); Int. in Med., Baltimore City Hospitals, 7/1/38-6/30/39, in Surg., Duke Hospital, 7/1/39-6/30/40, and in Orth., N. C. Orthopaedic Hospital, 7/1-8/31/40, and Massachusetts General Hospital, 9/1/40—
Lange Lympa, Tallie (Okio), Polling, M.D., Duke (3/16/40); Int. in Med.

James Lyman Tullis (Ohio), Rollins; M.D., Duke (3/16/40); Int. in Med., Roosevelt Hospital, New York City, 7/1/40—

James Arthur Tupper (Wash.), Washington; M.D., Duke (6/3/40); Int., Macon Hospital, Macon, Georgia, 6/4-6/30/40, and rotating, Baltimore City

Hospitals, 7/1/40-

Arthur Fred Turner, Jr. (Fla.), Southern, Duke; M.D., ibid. (6/13/36); Int., rotating, Christ Hospital, Cincinnati, O., 7/1/36-6/30/37; Int. in Surg., Medical College of Virginia, Hospital Division, Richmond, 7/1/37-6/30/38; Jr. Res. and Res. in Urol., Henry Ford Hospital, Detroit, 9/1/38-

Larry Turner (N. C.), Duke; M.D., ibid. (6/5/39); Int. in Med., Baltimore City Hospitals, 7/1/39-6/30/40, and rotating, University Hospitals, Okla-

George Irvin Uhde (Pa.), Duke; M.D., ibid. (6/13/36); Int., rotating, and Res. in Med., Reading City Hospital, Reading, Pa., 7/1/36-6/30/38; Res., Baltimore Eye, Ear and Throat Hospital, 7/1/38-6/30/39; present address (in practice; G), Columbia, Pa.

^{*} See footnote, p. 69.

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Joe Milton Vanhoy (N. C.), Duke; M.D., ibid (6/6/38); Int., Orthopaedic Hospital, Gastonia, N. C., 7/1-8/31/38; Int. in Surg., Bellevue Hospital, 9/21/38-

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William Lucas Venning, Jr. (N. C.), Duke, Harvard; M.D., Duke (12/16/39); Int. in Ped., Duke Hospital, 1/1-6/30/40, and in Med., Baltimore City Hospitals, 7/1/40—
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Myron Cherrington Waddell (Nebr.), Nebraska, Wesleyan, St. Louis; med. stud., ibid., 1929-31; M.D., Duke (12/19/33); Int. in Path., Presbyterian Hospital, Denver, Colo., 1/1/34-8/31/35; present address (in practice; G), 637 Republic Bldg., Denver, Colo.

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^{*} See footnote, p. 69.

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6/30/40; and Fort Knox, Ky., 9/15/40—

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^{*} See footnote, p. 69.

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Doris Surles Woolsey (see Doris Lee Surles).

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^{*} See footnote, p. 69.

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Neurology

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Neuropsychiatry

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- Bogart, William M., M.D., Hopkins, 1939; Int., 1939-40. Univ. of Minnesota Hospitals, Minneapolis, Minn.
- Bramer, James D., M.D., Rochester, 1935; Int., 1937-38. Palmyra, N. Y.
- Bridgers, William H., M.D., Duke, 1936; Int. and Ass't. Res., 1936-40. Montreal Neurological Institute, Montreal, Canada.
- Buckner, Frank W., M.D., Duke, 1936; Int., 1936-37. New Haven Hospital, New Haven, Conn.
- Bugg, Everett I., Jr., M.D., Johns Hopkins, 1937; Int., 1937-38. Johns Hopkins Hospital, Baltimore, Md.
- Burns, Robert A., M.D., Rochester, 1936; Int., 1936-37. Univ. of California Hospital, San Francisco, Calif.
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- Fritz, Milo, M.D., Columbia, 1934; Int., July-Nov., 1936. Ketchikan, Alaska.

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Griesmer, Ruth G., M.D., Michigan, 1930; Int., 1930-31. Anson Memorial

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Kiesau, Kenneth R., M.D., *Iowa*, 1938; Int., 1939-40. Holston Valley Community Hospital, Kingsport, Tenn. Lennon, Hershel C., M.D., Pennsylvania, 1931; Int., 1931-32. Temple Univ.

Hospital, Philadelphia, Pa.

Lilly, George, M.D., Tulane, 1931; Int., 1931-32. 25 S. E. 2nd Ave., Miami, Fla. Metcalf, William, M.D., Johns Hopkins, 1937; Int., 1937-38. New Haven, Conn.

Miller, John S., Jr., M.D., Johns Hopkins, 1934; Int., 1934-35. Crown Point, N. Y.

Morfit, H. Mason, M.D., Hopkins, 1939; Int., 1939-40. Jefferson Hospital, Roanoke, Va. Munroe, H. Stokes, Jr., M.D., Duke, 1935; Int. and Ass't. Res., 1936-38. Pro-

fessional Bldg., Charlotte, N. C. Newbern, Walter R., M.D., Duke, 1937; Int., 1938-39. Statesville, N. C. Oates, Max O., M.D., Johns Hopkins, 1929; Ass't. Res. and Res., 1932-36. City Hospital, Martinsburg, W. Va.

Owens, Francis L., M.D., Duke, 1934; Int., 1934-35. Pinehurst, N. C.

Parsons, Philip B., M.D., Duke, 1936; Int., 1936-37. Professional Bldg., Charlotte, N. C. Patton, Wm. B., M.D., Hopkins, 1935; Int., July-Dec., 1935. Rochester, Minn.

Perkins, P. Kermit, M.D., Rush, 1932; Int., April-July, 1931. Newport, R. I. Present, Arthur J., M.D., Yale, 1932; Int., 1932-33. Scripps Memorial Hospital, La Jolla, Calif.

Pudenz, Robert H., M.D., Duke, 1935; Int., Jan.-Sept., 1936. Royal Victoria

Hospital, Montreal, Que., Canada.

Ray, R. Beverley, M.D., Vanderbilt, 1938; Int. and Ass't. Res., 1938-40. Willis C. Campbell Clinic, Memphis, Tenn.

Roberts, Louis C., M.D., Duke, 1933; Int. and Ass't. Res., 1934-38. Durham,

N. C. Ruark, Robert J., M.D., Pennsylvania, 1931; Int., 1931-32. 127 Hargett St., Raleigh, N. C.
Sanger, W. Paul, M.D., *Pennsylvania*, 1931; Int., 1931-32. 127 Hargett St., Sanger, W. Paul, M.D., *Vanderbilt*, 1931; Int., Ass't. Res. and Res., 1931-37. 121 W. 7th St., Charlotte, N. C.
Scadron, Eugene N., M.D., *Duke*, 1934; Int., 1935-36. 993 Park Ave., New York City.

Schiebel, Herman M., M.D., Hopkins, 1933; Int., Ass't. Res. and Res., 1933-39.

Durham, N. C. Smith, Albert R., M.D., Duke, 1934; Int., 1934-35. State Univ. of Iowa, Children's Hospital, Iowa City, Iowa. Street, Dana M., M.D., Cornell, 1936; Int., 1937-38. Boston City Hospital,

Boston, Mass.

Troxler, Eulyss R., M.D., Duke, 1938; Int., 1939-40. Massachusetts General

Hospital, Boston, Mass. Wehs, Richard J., M.D., Johns Hopkins, 1932; Int., 1933-34. 69 Kendall Ave.,

Bellevue, Pa.

Whildin, James G., M.D., Duke, 1937; Int., 1938-39. Duke Hospital, Durham, N. C.

Wilkinson, William E., M.D., Duke, 1932; Int. and Ass't. Res., 1932-35. Fort Knox, Ky.

Wilson, James E., M.D., Johns Hopkins, 1934; Int., 1934-35. Long Island Hospital, Brooklyn, N. Y. Windsor, Roger G., M.D., Cornell, 1938; Int., 1938-39. Church Home and

Infirmary, Baltimore, Md. Ziv, Louis B., M.D., Johns Hopkins, 1930; Int., Ass't. Res. and Res., 1930-34. 500 Washington St., Portsmouth, Va.

Otolaryngology and Ophthalmology

Covell, Kermit W., M.D., Indiana, 1935; Int., 1937-38. 521 S. Main St., Racine, Wis.

Farmer, Wm. D., M.D., Duke, 1934; Int., Ass't. Res. and Res., 1936-39. Duke Hospital, Durham, N. C.

Fritz, Milo, M.D., Columbia, 1934; Int. and Res., Nov. and Dec., 1939. Ketchikan, Alaska.

Hargett, Edgar R., M.D., Cincinnati, 1931; Int., July-Oct., 1936. 6 W. Main St., Springfield, O.
Hasler, Walter T., M.D., Duke, 1933; Ass't. Res., 1934-35; Res., 1935-36. 2730 Colby Ave., Everett, Wash.

Heinitsh, George, M.D., Duke, 1932; Int., 1934-35; Ass't. Res., 1934-36; Res.,

1936-37. U. S. Army, Fortress Monroe, Va.
Hicks, James M., M.D., Medical College of State of South Carolina, 1931;
Ass't. Res., 1932-33; Res., 1933-34. 236 W. Evans St., Florence, S. C.
Matthews, E. Eugene, Jr., M.D., Georgia, 1930; Ass't. Res., 1931-32. Augusta,

Ga.

Potter, William B., M.D., Nebraska, 1937; John Gaston Hospital, Memphis, Tenn.

Stayer, Glenn E., M.D., Duke, 1934; Int., 1935-36; Ass't. Res., 1936-37; Res., 1937-38. Sarasota, Fla.

Orthopaedics

Hastings, Walter D., Jr., M.D., Duke, 1938; Int., 1938-39. City Memorial Hospital, Charlotte, N. C.

Holscher, Edward C., M.D., Harvard, 1935; Int., Ass't. Res. and Res., 1936-39. Hospital for Ruptured and Crippled, New York City.

Hutchison, Jay L., M.D., Duke, 1933; Res., 1935-36. 1141 Fourth Ave., Huntington, W. Va.
Jacobs, Julian E., M.D., Nebraska, 1935; Ass't. Res., 1936-37; Res., 1937-38.

Charlotte, N. C.

Knight, Robert A., M.D., Oklahoma, 1938; Int., 1939-40. Willis C. Campbell Clinic, Memphis, Tenn.

Oates, Max O., M.D., Hopkins, 1929; Res., 1932-33. City Hospital, Martins-

burg, W. Va.
Raney, R. Beverly, M.D., *Harvard*, 1930; Res., 1934-37. Durham, N. C.
Street, Dana M., M.D., *Cornell*, 1936; Int., 1937-38. Boston City Hospital, Boston, Mass.

Urology

Culbertson, Leon R., M.D., Virginia, 1936; Int., 1938-39. Univ. of Virginia Hospital, Charlottesville, Va.

Daniel, Walter E., M.D., Medical College of Virginia, 1931; Ass't. Res. and Res., 1936-38. Charlotte, N. C. Feyder, Sydney, M.D., Rochester, 1936; Int., 1937-38. New Haven Hospital, New Haven, Conn.

Haltom, William L., M.D., Duke, 1932; Ass't. Res. and Res., 1933-36. City Hospital, Martinsburg, W. Va.

Roberts, Louis C., M.D., *Duke*, 1933; Res., 1938-40. Durham, N. C. Weyrauch, Henry M., Jr., M.D., *Johns Hopkins*, 1929; Res., July-Dec., 1934. 384 Post St., University of California, San Francisco, Calif.

Obstetrics and Gynecology

Avner, S. Leighton, M.D., Long Island Medical College, 1928; Ass't. Res. and Res., 1931-32. Buxton, N. C.

Conti, Martin E., M.D., Duke, 1933; Int., March-Aug., 1933. U. S. Navy, Portsmouth, Va.

Derieux, George H., Jr., M.D., Virginia, 1932; Int., 1933-34; Ass't. Res. and Res., 1934-37. Santa Barbara, Calif.
Donnelly, Grant L., M.D., Duke, 1933; Int., July, 1933. Univ. of North Carolina School of Medicine, Chapel Hill, N. C.

Donnelly, Joseph P., M.D., Yale, 1932; Int., 1932-33. 788 Kearney Ave.,

Kearney, N. J.

Finch, Adam T., Jr., M.D., Virginia, 1931; Ass't. Res., 1932-33. Chase City Va.

Fraser, Clarence K., M.D., Tufts, 1935; Int. and Ass't. Res., 1936-38. George Washington Univ. School of Medicine, Washington, D. C.

Freeman, Clarence D., M.D., Virginia, 1932; Int., 1932-33; Ass't. Res. and Res., 1933-36. 505 Washington St., Portsmouth, Va. Hill, Frances F. (Mrs. Frances Hill Fox), M.D., Pennsylvania, 1935; Int.,

1936-37. Durham, N. C.

Jones, John Walter, M.D., Washington, 1933; Ass't. Res., 1937-38. Southern Clinic, Texarkana, Texas.

Lapsley, A. Fraser, M.D., Virginia, 1933; Int., July-Sept., 1935. Badin, N. C. Mahl, George K., M.D., Duke, 1934; Int., July-Dec., 1935. Ironton, O.

Mauzy, Charles H., M.D., Virginia, 1933; Int., 1934-35. Winston-Salem, N. C. Payne, Sheldon A., M.D., Yale, 1931; Int. and Ass't. Res., 1934-36. Shelton Clinic, Los Angeles, Calif.

Pearse, Richard L., M.D., *Harvard*, 1931; Ass't. Res. and Res., 1935-38. 602 Chapel Hill St., Durham, N. C. Perdue, John R., M.D., *Virginia*, 1932; Int., 1933-34. 25 S. E. 2nd Ave.,

Miami, Fla.

Peter, Beverly K., M.D., Virginia, 1930; Int., 1931-32. Beckley, W. Va. Rucker, Edwin M., M.D., Duke, 1934; Int., Ass't. Res. and Res., 1934-40. Medical Arts Bldg., Richmond, Va.

Seitz, Gifford D., M.D., Oregon, 1932; Int., Ass't. Res. and Res., 1934-39. Portland, Ore.

Thomas, Walter L., M.D., Virginia, 1931; Ass't. Res. and Res., 1932-35. Duke

Hospital, Durham, N. C. Webster, Nelson M., M.D., *Duke*, 1937; Int., 1938-39. Forsyth County Hospital, Winston-Salem, N. C.

Endocrine Division, Obstetrics and Gynecology

Axelson, Gordon J., M.D., Duke, 1937; Ass't. Res., 1939-40. State Colony for Epileptics and Feebleminded, Colony, Va. Powell, Norborne B., M.D., Baylor, 1938; Int., 1938-39. Charity Hospital,

New Orleans, La.

Pediatrics

Anderson, Harriott I. Gates, M.D., Toronto, 1935; Int., 1936-37. Univ. of Tennessee Medical School, Memphis, Tenn.

Arena, Jay M., M.D., Duke, 1932; Ass't. Res. and Res., 1933-35. Duke Hospital, Durham, N. C.

Badanes, Maynard B., M.D., Duke, 1936; Int., 1936-37. Flushing, Long Island,

N. Y. Beall, Lawrence L., M.D., Medical College of Virginia, 1931; Ass't. Res., 1932-33. Cleveland, Miss.

Billington, Sherod M., M.D., Vanderbilt, 1935; Int., 1935-36. Seattle, Wash. Booth, Marguerite, M.D., Yale, 1935; Int., 1935-36. Univ. Hospital, Minneapolis, Minn.

Burns, Margaret V., M.D., Duke, 1937; Int., 1937-38. Asheville, N. C.

Caldwell, Eliza, M.D., Vanderbilt, 1932; Int., 1936-37. Bellevue Hospital, New York City, N. Y.
Cason, John F., M.D., Vanderbilt, 1932; Int., 1932-33. Murfreesboro, Tenn. Collier, James L., M.D., Tulane, 1933; Int., 1934-35. 1215 Walker Ave., Houston, Texas.

Craven, Jean D., M.D., Johns Hopkins, 1930; Int., Ass't. Res. and Res., 1930-34. Lexington, N. C.

Dunlap, Ernest B., Jr., M.D., Duke, 1939; Int., July and Aug., 1939. Johns Hopkins Hospital, Baltimore, Md. Gault, William H., M.D., Yale, 1936; Int., 1937-38. Children's Hospital, Cin-

cinnati, O.

Gay, Charles H., M.D., *Duke*, 1933; Ass't. Res. and Res., 1934-36. Charlotte, N. C.

Harris, Jerome S., M.D., Harvard, 1933; Ass't. Res., 1937-38. Duke Hospital, Durham, N. C.

Harrison, Glenn E., M.D., Iowa, 1928; Res., July-Dec., 1931. Park Hospital

Clinic, Mason City, Iowa. Hewell, Barbara A., M.D., Vanderbilt, 1932; Int., 1934-35. Greenville, S. C. Lawton, Anne L., M.D., Yale, 1930; Ass't. Res., 1931-33. Howard, R. I.

Li, Pei-Kuang, M.D., Cheeloo, 1930; Int., 1938-39.

Lupton, Emmett S., M.D., New York, 1938; Int., Jan.-Dec., 1939. Board of Health, Raleigh, N. C. State

MacColl, Wm. A., M.D., Duke, 1938; Int. and Ass't. Res., 1938-39. Boston Dispensary, Boston, Mass.
Martin, David W., M.D., Duke, 1937; Int., Ass't. Res. and Res., 1938-40. West

Palm Beach, Fla.

Mignone, Joseph, Jr., M.D., Yaie, 1933; Int. and Ass't. Res., 1933-34.

Orange St., New Haven, Conn. Pachman, Daniel J., M.D., Duke, 1934; Res., 1936-37. 2376 East 71st St.,

Chicago, Ill.

Platt, Louis, M.D., *Iowa*, 1936; Ass't. Res., 1938-39. Buffalo, N. Y. Children's Hospital,

Rasmussen, L. Paul, M.D., Duke, 1935; Res., 1937-38. Salt Lake City, Utah. Rollins, Charles D., M.D., Pennsylvania, 1935; Int., 1937-38. Henderson, N. C. Ross, Laura E., M.D., Pennsylvania, 1938; Int. and Ass't. Res., 1938-40. Children's Hospital, Cincinnati, O.

Shepard, Karl, M.D., Harvard, 1935; Int., Jan.-July, 1939. High Point, N. C. Shinners, Burton M., M.D., Duke, 1936; Int., 1937-38. McLean Hospital, Waverly, Mass.

Silver, George A., M.D., Duke, 1937; Int., 1937-38. Hightstown, N. J.

Spekter, Louis, M.D., Rochester, 1933; Int., 1933-34; Res., 1935-36. Asylum

Spekter, Louis, M.D., Rochester, 1935, Int., 1935-37, Res., 1956-38, St., Hartford, Conn.
Stevick, Charles P., M.D., Duke, 1936; Int., 1936-37. Delco, N. C.
Styron, Charles W., M.D., Duke, 1938; Int., 1938-39. New England Deaconess Hospital, Boston, Mass.
Thomason, Robert H., M.D., Duke, 1935; Int., 1935-36. Huntsville, Texas.
Thompson, Sarah Vance (Mrs. Vance Thompson Alexander), M.D., Vanderbilt, 1931; Int., 1931-32. Fort Bliss, Texas.
Venning, William L., M.D., Duke, 1939; Int., Jan.-July, 1940. Baltimore City Hospitals, Baltimore, Md.

Hospitals, Baltimore, Md. Weitz, Frank, M.D., *Tulane*, 1935; Int., 1936-37; Ass't. Res., July-Sept., 1937. 384 Peachtree St., N. W., Atlanta, Ga. Wren, James C., M.D., *Duke*, 1939; Int., April-July, 1939. Bellevue Hospital,

New York City.

Obstetrics-Pediatrics

Black, John R., Jr., M.D., Duke, 1938; Int., 1938-39. Bamberg, S. C.

Cross, Almon R., M.D., Duke, 1938; Int., 1938-39. New York Hospital, New York City.

Fogel, David H., M.D., Duke, 1938; Int., 1939-40. Flower and Fifth Ave. Hospital, New York City.

Sawyer, L. Everett, M.D., Duke, 1939; Int., 1939-40. Baltimore City Hospitals, Baltimore, Md.

Radiology

Apple, Elbert D., M.D., Washington, 1929; Res., 1930-32. Wesley-Long Hospital, Greensboro, N. C.

Harrison, Edward K., M.D., Columbia, 1932; Ass't. Res. and Res., 1936-38. Ossining, N. Y.

Hurt, Floyd K., M.D., Virginia, 1935; Ass't. Res. and Res., 1938-39. Exchange Bldg., Orlando, Fla. Lehman, Jacob S., M.D., Hahnemann, 1931; Ass't. Res. and Res., 1933-35. 250

S. 18th St., Philadelphia, Pa.

Parrish, Madison E., M.D., South Carolina, 1932; Ass't. Res., 1934-36. 16 W. Calhoun St., Sumter, S. C.
Parsons, Philip B., M.D., Duke, 1936; Int., March-June, 1936; Res., 1938-40.
Professional Bldg, Charlotte, N. C.

Reuter, Ernest G., M.D., Oregon, 1933; Ass't. Res., 1937-38. Portland, Ore. Thornton, Walter F., M.D., Baylor, 1927; Res., 1935-36. 725 Church St., Lynchburg, Va.
Williams, Robert, M.D., *Pennsylvania*, 1935; Ass't. Res., 1938-39. Garfield Memorial Hospital, Washington, D. C.

Pathology

Anderson, William A., M.D., Toronto, 1934; Ass't. Res., 1936-37. Univ. of Tennessee, Memphis, Tenn.
Balas, Elizabeth M., M.D., Duke, 1938. Charity Hospital, New Orleans, La. Brian, Earl W., M.D., Duke, 1934; Ass't. Res., 1935-36. Raleigh, N. C. Cooper, A. Derwin, M.D., George Washington, 1931; Int., 1932-33. 11 Corcoran St., Durham, N. C.

Craven, Erle B., M.D., Johns Hopkins, 1929; Res., 1930-31. Lexington, N. C. Daniel, Walter E., M.D., Medical College of Virginia, 1931; Int., 1933-34. Charlotte, N. C.
Devine, John W., M.D., Duke, 1935; Int., 1936-37. 610 Church St., Lynchburg, Va.

Dill, Leslie Van D., M.D., Duke, 1936; Int., 1937-38. New York Hospital. New York City.
Feyder, Sydney, M.D., Rochester, 1936; Int., 1936-37. New Haven Hospital, New Haven, Conn.

Gunter, June U., M.D., Jefferson, 1936; Ass't. Res. and Res., 1938-40. Jefferson Hospital, Roanoke, Va.

Hall, Snowden C., M.D., Harvard, 1930; Int., July-Aug., 1935. 105 Union St., Danville, Va.

Lennon, Hershal C., M.D., Pennsylvania, 1931; Ass't. Res., 1932-33. Temple Univ. Hospital, Philadelphia, Pa. Nahigian, Russell, M.D., Yale, 1939; Int., 1939-40. Bellevue Hospital, New

York City.

Oates, Max O., M.D., Johns Hopkins, 1929; Ass't. Res. and Res., 1930-32. City Hospital, Martinsburg, W. Va.

Parsons, Philip B., M.D., Duke, 1936; Int., 1937-38. Professional Bldg., Charlotte, N. C. Preston, John F., Jr., M.D., Duke, 1935; Int., 1936-37. Alexander Hospital,

Kwangju, Korea. Rigdon, Raymond H., M.D., Emory, 1931; Int., Ass't. Res. and Res., 1931-34.

Univ. of Tennessee, Memphis, Tenn.
Smoot, John L., M.D., *Hopkins*, 1937; Int., 1938-39. Univ. of Virginia Hospital, Charlottesville, Va.

Stevens, Joseph B., M.D., Duke, 1936; Int. and Ass't. Res., 1937-37. Jefferson Standard Bldg., Greensboro, N. C. Street, Dana M., M.D., Cornell, 1936; Int., 1936-37. Boston City Hospital, Boston, Mass.

Wilbur, E. Lloyd, M.D., Nebraska, 1934; Int. and Ass't. Res., 1936-38. Univ.

of Arkansas College of Medicine, Little Rock, Ark. Wilkinson, William E., M.D., Duke, 1932; Ass't. Res., 1933-34. Fort Knox, Ky. Williams, Jarret E., M.D., Duke, 1933; Int. and Ass't. Res., 1933-35. Univ. of Texas School of Medicine, Galveston, Texas.

Wood, Harold, M.D., Tufts, 1933; Ass't. Res., 1935-36. Tufts College Med-

ical School, Boston, Mass.

Student Health

Arnett, Eugene W., Jr., M.D., Virginia, 1937; Ass't. Res., 1938-39. Danville. Va.

Frazer, William P., M.D., Duke, 1933; Int., 1933-34. Hamilton, Va. Kress, Jacob H., M.D., Medical College of Virginia, 1936; Ass't. Res., 1937-38. Wadesboro, N. C.

Saxe, Louis J., M.D., Duke, 1934; Int., 1934-35. 15 E. Monroe St., Phoenix, Ariz.

Tannenbaum, Solomon, M.D., Georgia, 1935; Int., 1935-36. 753 Broad St., Augusta, Ga. Wood, W. Reed, M.D., Louisville, 1938; Ass't. Res., 1939-40. John Sealy

Hospital, Galveston, Texas.

Dentistry

Lipton, Michael M., D.D.S., Iowa, 1936; Int., 1936-37. 1148 Ward Ave., Bronx, N. Y.

Ross, Norman F., D.D.S., Temple, 1937; Int., 1937-38. Durham, N. C. Zurkow, George A., D.D.S., Peunsylvania, 1939; Int., 1939-40. Wilmington, Del.

Biochemistry

Elgart, Samuel, M.D., Tufts, 1938; Ass't. Res., 1939-40. Jewish Hospital, Brooklyn, N. Y.

Harris, Jerome S., M.D., Harvard, 1933; Ass't. Res., 1936-37. Duke Hospital, Durham, N. C.

Parfentjev, Ivan A., Ph.D., Moscow, 1916; Ass't. Res., 1932-34. Lederle Laboratories, Pearl River, N. Y. Payne, Sheldon A., M.D., Yale, 1931; Ass't. Res., 1932-33. Shelton Clinic,

Los Angeles, Calif. Ricketts, Edwin T., M.D., Duke, 1936; Ass't. Res., Sept., 1938-Feb., 1939. Chiriqui Land Co. Hospital, Puerto Armuelles, Repub. of Panama.

Schechter, Abraham J., M.D., Yale, 1931; Ass't. Res., 1935-36. 32 Lenox Road, Brooklyn, N. Y.

Administration

Cobb, Clarence H., Ph.G., North Carolina, 1933. Duke Hospital, Durham, N. C. Daniel, James M., A.B., Duke, 1936. James Walker Memorial Hospital, Wil-

Earngey, Willard P., Jr., B.A., Duke, 1938. Cherokee County Hospital, Gaffney, S. C.

Graham, Reuben H., Jr., B.S., North Carolina, 1938. Duke Hospital, Durham, N.C.

Hamilton, Horace Emerson, B.S., North Carolina, 1937. Hugh Chatham Memorial Hospital, Elkin, N. C. Hamlet, Christopher C., A.B., North Carolina, 1933. Home Security Life

Insurance Co., Durham, N. C.

King, Robert H., A.B., *Washburn*, 1933; M.A., Duke, 1935. Hospital Care Association, Raleigh, N. C.

Thomas, R. Zacheriah, A.B., *Duke*, 1936. Rex Hospital, Raleigh, N. C. Wiggins, John B., A.B., *North Carolina*, 1935. Hospital Care Association, Durham, N. C.

Wright, DeWitt, B.S. and J.D., Northwestern, 1923 and 1926. Marlboro County General Hospital, Bennettsville, S. C.

Pharmacy

Brown, Eugene T., B.S., North Carolina, 1939; Int., 1939-40. Duke Hospital,

Durham, N. C. Proctor, William V., B.S., North Carolina, 1939; Int., 1939-40. Sterling Drug Company, Charlotte, N. C.

GEOGRAPHIC DISTRIBUTION OF 163 PRACTICING GRADUATES OF THE SCHOOL OF MEDICINE, 1932-1937

ALABAMA (3): Birmingham: W. H. Darden ('32, IndS, Ala.)¹
Heflin: N. C. Veale ('37, A, Cal.)
Mobile: S. Rumpanos ('37, G, Ala.) Phoenix: L. J. Saxe ('34, P, Ohio) St. Johns: G. C. Lewis ('33, G, Ky.) CALIFORNIA (6): Los Angeles: J. S. Baker ('34, G, Cal.)
R. A. Hare ('34, Oph, N. J.)
J. W. Kerner ('36, G, N. J.)
Pasadena: R. M. Mullen ('34, ObG, Pa.)
San Diego: D. W. Lester ('35, P, Kan.)
Westwood: A. Gorfain ('34, U, N. Y.) COLORADO (1): Denver: M. C. Waddell ('33, G, Neb.) CONNECTICUT (1): Hartford: W. H. Glass ('37, I, N. Y.) DISTRICT OF COLUMBIA (9): Washington: B. H. Blocksom, Jr. ('33, /ashington: B. H. Bitckson, Jr. (c., A, Ind.)
M. C. Cobey ('34, Or, Md.)
R. T. Jenkins ('35, A, N. C.)
T. N. Lide ('38, A, S. C.)
P. J. McNamara ('36, Na, Mass.)
P. I. Nixon, Jr. ('39, A, Texas)
W. F. Powell ('37, PH, N. C.)
R. R. Stevenson ('32, G, Utah)
B. A. Strickland, Jr. ('33, A, N. C.) FLORIDA (9): Jaeksonville: R. N. Joyner ('33, PH, Jacksonville: R. N. Joyner ('33, PH, N. C).
J. F. Lovejoy ('32, Or, Ga.)
L. B. Provinsky ('36, G, Pa.)
Lakeland: R. H. Ralston ('34, G, Pa.)
Sarasota: M. B. White ('35, I, Fla.)
G. E. Stayer ('34, OALR, Fla.)
Tallahassee: G. K. Massengill ('36, PH, N. C)

N. C.)
Tampa: C. F. Chunn ('35, S, N. C.)
West Palm Beach: D. W. Martin ('37, Pd, Fla.)

GEORGIA (2):

Alto: R. F. Mikell ('33, T, Fla.) Coolidge: A. R. Marsicano ('37, G, N. Y.)

ILLINOIS (3):

Chicago: G. Freeman ('33, I, Ga.)
D. J. Pachman ('34, Pd, N. Y.)
Hines: K. J. Costich ('35, V, N. Y.)

INDIANA (1):

Evansville: W. E. Sharpe, Jr. ('34, PH, N. C.)

KENTUCKY (2): Fort Knox: W. E. Wilkinson ('32, A, N. C.)
Seeo: O. F. Kleckner ('32, G, N. Y.)

LOUISIANA (1): Shreveport: W. F. Drummond ('37, G. Fla.)

MAINE (1): Bridgton: V. L. Szanton ('36, G, N. Y.)

MARYLAND (2): Baltimore: T. A. Gonder ('37, I, Md.) Clarksville: C. S. Whitaker ('38, G, N. Y.)

Massachusetts (3): M. E. Street, Jr. ('33, P. W. Va.)
M. E. Street, Jr. ('37, PH, N. C.)
Worcester: H. P. Harris, Jr. ('36, Ho, Conn.)

Michigan (3): Detroit: A. D. Finch ('35, I, N. C.)
D. F. Marion ('35, GI, Pa.) Saginaw: G. L. Ackerman ('33, S, Mich.)

MINNESOTA (1): Lindstrom: A. Neumaier ('35, G, Germany.)

Mississippi (1): Pascagoulu: W. J. Weatherford ('33, G, Ala.)

MONTANA (1): Great Falls: F. H. Crago ('35, G, W. Va.)

NEW JERSEY (9): Basking Ridge: J. S. Forbes, Jr. ('34, G, N. J.)
Bloomfield: B. B. Burrill, Jr. ('36, G, N. Frenchtown: A. M. Jenkins ('35, G. N. J.) Hightstown: G. A. Silver, III ('37, G, N. J.) New Brunswick: N. O. Bowman ('32, G, New Brunswick: N. O. Bowman (32, G, Ky.)
Newark: H. M. Holtz ('35, Oph, N. J.)
W. A. Leff ('36, G, N. J.)
Princeton: W. C. Spring, Jr. ('36, Bact, N. J.)
Union City: S. J. Margolin ('34, OALR, N. Y.)

New York (13): Brooklyn: B. G. Dinin ('33, G, N. Y.)
N. Ruby ('33, Pd, N. J.)
Hollis: C. Cramer ('35, G, N. Y.)
Ithaea: B. Bissell ('36, PH, N. Y.)
Long Island: M. B. Badanes ('36, G, N. Y.)

¹ In parentheses, the numeral indicates the year of graduation from the School of Medicine, and the letters, A = Army, Anat = Anatomy, Bact = Bacteriology, D = Dermatology, G = General practice, GI = Gastro-enterology, Ho = Hospital Administration, I = Internal Medicine, IndS = Industrial Surgery or Medicine, Mi = Missionary, N = Neurology, Na = Navy, OALR = Ophthalmology and Otolaryngology, ObG = Obstetrics and Gynecology, Oph = Ophthalmology, Or = Orthopaedics, P.= Psychiatry, Path = Pathology, Pd = Pedicatrics, PH = Public Health, Pharm = Pharmacology, R = Radiology, S = Surgery, T = Tuberculosis, U = Urology, V = Veterans Administration. The state in parentheses is the graduate's home state.

New York City: H. L. Reed ('36, G, N. Y).
E. N. Scadron ('34, ObG, N. Y.)
I. M. Siegel ('34, G, N. Y.)
Pearl River: A. L. Joyner ('34, Bact, Utica: J. R. Wilson ('34, G, Mass.)
Wassaic: R. J. Depner ('32, P, R. I.)
White Plains: C. A. Collins ('35, G, N.
Y.) Woodhaven: R. H. Godwin ('34, G, N. Y.)

NORTH CAROLINA (48):

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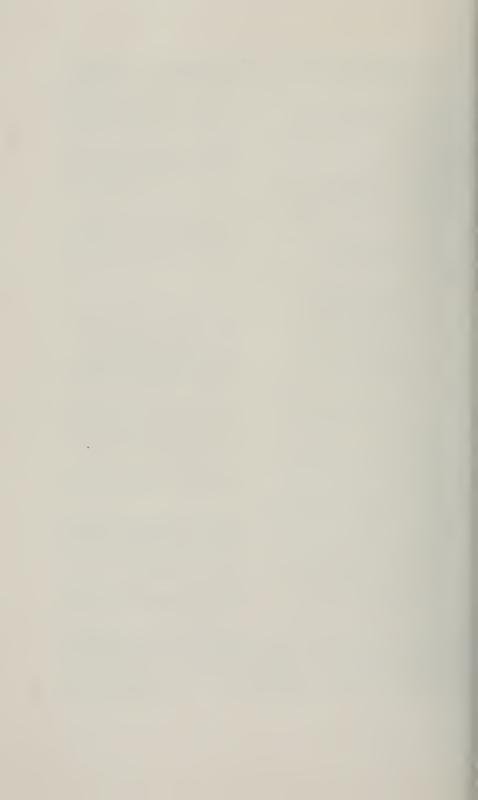
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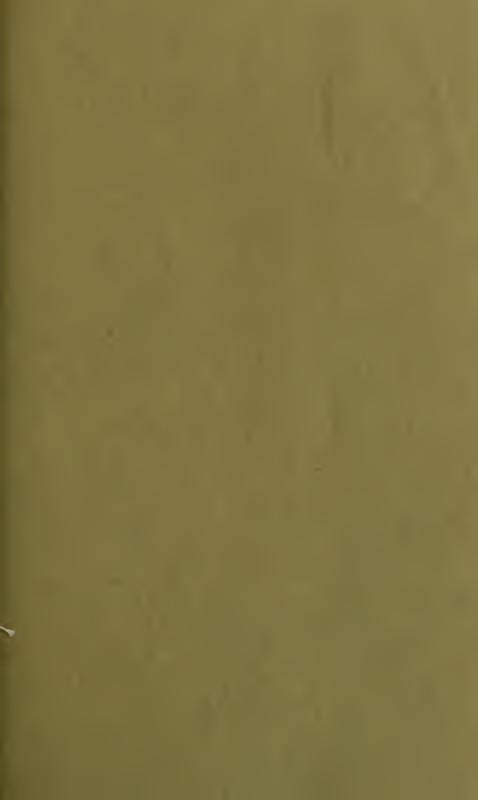
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1941



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DURHAM, NORTH CAROLINA
1941



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SCHOOL OF FORESTRY CALENDAR

1941

- May 29. Thursday—Field work begins in Surveying (C. E. S110) required of students entering School of Forestry.
- June 19. Thursday—Field work begins in Forest Surveying (For. S150).
- July 4. Friday—Independence Day: a holiday.
- July 24. Thursday—Field work begins in Forest Mensuration (For. S151).
- Sept. 16. Tuesday—Student conferences with School of Forestry Faculty.
- Sept. 17. Wednesday—Registration of students in the School of Forestry.
- Sept. 18. Thursday—Instruction begins in the School of Forestry.
- Sept. 18-20. Thursday, Friday, Saturday—Registration of students in the Graduate School.
- Oct. 15. Wednesday—Last day for submitting thesis subjects for Master of Forestry and Doctor of Forestry degrees.
- Nov. 27. Thursday—Thanksgiving Day: a holiday.
- Dec. 11. Thursday-Duke University Day.
- Dec. 20. Saturday, 1:00 P.M.—Christmas recess begins.

1942

- Jan. 5. Monday, 8:00 A.M.—Instruction is resumed.
- Jan. 23. Friday—School of Forestry mid-year examinations begin.
- Jan. 30. Friday—Registration of students in the School of Forestry.
- Feb. 2. Monday-Second semester begins.
- March 21. Saturday, 1:00 p.m.—Spring vacation begins. School of Forestry field trip begins.
- March 30. Monday, 8:00 A.M.—Instruction is resumed.
- April 6. Monday, 8:00 A.M.—School of Forestry field trip ends.
- May 1. Friday—Last day for submitting Doctor of Forestry theses.
- May 15. Friday—Last day for submitting Master of Forestry theses.
- May 29. Friday-School of Forestry final examinations begin.
- June 6. Saturday—Commencement opens; Senior Class Day; meeting of the Board of Trustees.

- June 7. Sunday—President's Address to Graduating Class; Commencement Sermon.
- June 8. Monday—Commencement Address; Alumni-Alumnae Luncheon; Graduating Exercises; Lowering of the Flag by the Graduating Class,

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DUKE ARBORETUM

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FORESTRY IN DUKE UNIVERSITY

GENERAL STATEMENT

Duke University, located at Durham, North Carolina, comprises Trinity College, the Woman's College, the College of Engineering, the Graduate School of Arts and Sciences, and the professional schools of Forestry, Law, Medicine, Nursing, and Religion. Nearly every state of the Union and several nations are represented in the student body of more than thirty-six hundred, not including the enrollment in the Summer School.

The University goes back in its origin to 1838, when Union Institute was founded in Randolph County by the Methodists and Friends. In 1851 the institution became Normal College, and was one of the first schools in America for the training of teachers. In 1859 the name was changed to Trinity College and so continued until 1924, when the College became a part of Duke University.

By virtue of an indenture of trust, executed December 11, 1924, by James Buchanan Duke, a great benefaction was placed at the disposal of humanity by providing for hospitalization, church work in rural communities, and education. The principal feature of the educational provision was the creation of Duke University.

The University occupies two campuses. The Woman's College campus, with its 108 acres, was formerly the campus of Trinity College. About a mile to the west are the new units of the University. The new campus, totaling 467 acres, also known as the West Campus, was first occupied in September, 1930.

Forestry in Duke University began early in 1931 when, through placing the Duke Forest under intensive management for forestry purposes, a substantial beginning was made in laying the foundations for educa-

tional work and research in forestry.

A pre-forestry curriculum, designed for students intent upon pursuing the study of forestry, particularly as a profession after graduation, was organized in Trinity College of Duke University in 1932 (see Announcement on Undergraduate Instruction in Duke University). year course of study provides only for instruction in fundamental and auxiliary subjects basic to a proper understanding of the highly specialized work in technical forestry. Duke University offers no professional degree in technical forestry available to undergraduates.

Training in technical forestry leading to the professional degrees, Master of Forestry and Doctor of Forestry, is offered in the School of Forestry, and is open to all graduates of the pre-forestry curriculum in Trinity College and to graduates of recognized scientific schools or col-

leges, universities, and professional schools of forestry.

Duke University is also prepared to offer, through the Graduate School of Arts and Sciences, graduate work in the more scientific aspects of forestry leading to the Master of Arts and Doctor of Philosophy degrees. This work is available to graduates of schools of forestry of recognized standing, and to college or university graduates holding the Bachelor's degree with their major work in appropriate scientific subjects. Undergraduate subjects which the college student, who does not have forestry training but who is contemplating work toward either degree in forestry, should take in preparation for this work may be illustrated as follows: at least two full years in botany, including general morphology or anatomy, the taxonomy, physiology, and ecology of plants; at least one course in zoology or general biology; courses in chemistry, physics, geology, economics, mathematics; and at least two years of French or German.

Several staff members of the Appalachian Forest Experiment Station are engaged in co-operative research projects in the Duke Forest. Specialists from this station and other prominent members of the U. S. Forest Service and representatives of forest and wood-using industries give occasional scheduled lectures at the School.

EDUCATIONAL FACILITIES

The School of Forestry is located partly in Few Quadrangle and partly in the Biology Building along with the Departments of Botany and Zoology. The administrative offices, two classrooms, and the forest mensuration and statistical laboratory are in Few Quadrangle, while other laboratories and offices and the School Library are in the Biology Building. The Biology Building contains, in addition to classrooms, laboratories, and offices, a library, three refrigerated rooms, an incineration room, a workshop, and eight dark-rooms. The School is provided with instruments and tools for use in both field and laboratory work in silvics, silviculture, and forest mensuration. Modern surveying instruments and accessory equipment are available for work in forest surveying.

Laboratories for work in wood anatomy and properties are provided with microtechnique and photomicrographic instruments, wood-working machinery, a Henderson dry kiln and a 50,000-pound Olsen Universal timber-testing machine. A modern forest soils laboratory equipped for physical and chemical studies is available. In the field of seasoning and preservation of wood a commercial-sized, single-compartment dry kiln and a fully equipped experimental pressure treating cylinder are available for instruction and research.

Facilities are also available for advanced work in plant physiology, plant anatomy, plant taxonomy, genetics, plant ecology, plant pathology, and the several branches of zoology. Many rooms in the Biology Building are equipped with vacuum, compressed air, direct and alternating electric current, gas, and running water.

The forestry section of the Library contains a growing collection of material on forestry, soils, and closely related subjects. It includes important books and periodicals in English and in French, German, and certain other foreign languages. The Library is well provided with American material, including Federal and State documents and reports. Over 150 periodicals and serials of importance in forestry and related fields are received by subscription or exchange.

Greenhouses, connected to the Biology Building through a soil-storage and work room, provide adequate space for experimental work.

A nursery has been established by the University for the joint use of the Sarah P. Duke Floral Garden, the Botany Department, and the School of Forestry. The forestry section of this nursery is used mainly for the growing of planting stock for the Arboretum and trees needed for research or other special purposes.

THE DUKE FOREST

The Duke Forest, located in Durham and Orange counties, North Carolina, consists of three main units; namely, the Durham, New Hope Creek, and Hillsboro divisions. Early in the development of Duke University it was recognized that the possession of such an area offered an unusual opportunity for the development of educational work in forestry.

Situated on the lower Piedmont plateau at elevations ranging from 280 to 650 feet, and composed of second-growth shortleaf and loblolly pines, oak, gum, hickory, maple, yellow poplar, ash, and other hardwoods, the Forest is representative of the various types of timber growth found throughout the region. Over a hundred different species of trees are found within or near the Forest. The land is rolling and there is relatively little rock outcrop, swamp, or other land of low productivity for timber growing. The total area of the Forest proper, exclusive of the University campus, is approximately five thousand acres.

In developing the Duke Forest the following objectives are being emphasized:

1. Demonstration of the various methods of timber growing, silvicultural treatment, and forest management applicable to the region.

2. Development as an experimental forest for research in the problems of timber growing and in the sciences basic thereto. In spite of the present timber situation and the accompanying economic ills, the technical and scientific knowledge required to handle forest crops efficiently on a permanent basis is still largely lacking. The Duke Forest affords a place where investigations may be carried on to augment this knowledge for the large region of which the local forest and soil conditions are representative.

3. To serve as an outdoor laboratory where field work can be carried on by forestry students under the guidance of the Forestry Faculty. One of the most difficult problems in forestry education is to bring the students into contact with the realities of professional activities. With all operations in the Forest, both routine and investigative, recorded annually, it is possible for a qualified man to get in a short time a degree of practical knowledge or technical expertness which only an organized forest can provide.

The Duke Forest is particularly well located to serve as a field laboratory, in that most of it is adjacent and easily accessible to the University campus. In fact, the Durham Division practically surrounds the West Campus, since it was laid out in one corner of the Forest. A paved State highway runs lengthwise through the Durham Division, and several

good roads cross the Forest. About fifteen miles of improved woods roads make all parts of the Forest readily accessible. A five-minute walk will take one well into the Forest, and any part of the Durham or New Hope Creek divisions can be reached by automobile in from ten to twenty minutes. At few other places in America can be found provision for forestry training and research which include the necessary forest literally at the door of a large university with its instructional, laboratory, and library facilities.

Although the Forest has been but recently organized, considerable progress has been made toward carrying out the principal objectives rec-

ognized at the outset.

Most of the 1,286 acres of open land is, or until recently has been, cultivated. Such of the open land as is not restocking naturally to forest trees is being planted. Here students have an opportunity to study at first hand the results of many experimental plantations prepared for them in advance. Arbitrarily by mixing species and varying the spacing between the trees in the plantations now being made, the foundation is laid for future research into many perplexing problems, such as species relationships and requirements, the most desirable spacing and species to use in this region, and the survival and relative rates of growth of the different species of trees.

Over sixty permanent sample plots, ranging in size from one-tenth acre to one acre, have been laid out in the Forest to study various problems. The plots are distributed through all the forest types, and range in purpose from studies of the effects of various silvicultural practices to studies of rates of growth and yields of the different timber types. More plots are being established as rapidly as time and funds will permit. Accurate records are kept on all this work, which will provide excellent material for student research. In the future many of these plots can

also be used to demonstrate desirable forestry practices.

The work of putting the Forest under intensive management is well under way. A complete inventory of the Forest has been made, and tabulations showing the present volume and annual growth of each separate timber stand are at hand. A forest type and timber stand map for each of the three divisions has also been completed. Each division has been subdivided into permanent compartments, and recommendations for the silvicultural treatment of the separate stands in each compartment, to be embodied in a management plan, are being formulated. Cutting operations within the limits of annual growth are being carried on, and as markets for definite products are developed or expanded such operations will be increased. To date, approximately 690 acres in the pine types have been thinned. These thinnings serve the dual purpose of contributing to the operation of the Forest as a going business and of demonstrating sound forestry practices. An efficient fire protection organization has been developed in co-operation with the State and Federal governments, and forest fire losses are being held to a minimum. In managing the Forest, public recreation activities are recognized. Several recreation areas have been established, and over fifteen thousand picnickers, hikers,

and horseback riders use the area annually. The Durham and New Hope Creek divisions of the Forest, together with several hundred acres of neighboring privately owned land, are incorporated in an Auxiliary State Game Refuge to give the necessary protection which will ultimately result in an increased amount of game in the surrounding territory. Records are being maintained of all activities in the Forest, and these records will become increasingly useful as they are improved as a result of further experience and research. With the diversification and expansion of activities now going on, the student has an opportunity to study an operating forest in all its phases and to obtain a grasp of the proper balance between theory and practice.

The Forest is admirably located for research in forest soils. An unusually large number of different soil conditions occur in the Forest because of the diversity of parent rock, topography, and past land culture. Major soil differences are due to the nature of the parent material which includes the basic rock of the Carolina Slate formation, granites, Triassic

sedimentary rock, and many types of basic intrusives.

An exceptionally good opportunity exists for the conduct of forest research by graduate students due to the wide range in forest types, ages, and soil conditions within the Forest and its proximity to the laboratories, greenhouses, and other scientific equipment and library facilities of the University. Research has already been started on special problems, particularly in the fields of silvics, forest soils, forest-tree physiology, silviculture, forest management, and wood technology. The Forest is used not only for research in forestry but also for research in forest biology by members of allied departments.

THE ARBORETUM

A feature which will be of outstanding value in the teaching of both forestry and botany in the future is the provision for development of an arboretum. In their annual meeting on June 4, 1934, the Board of Trustees of Duke University, upon the recommendation of their Forestry Committee, voted to set aside permanently an area of over three hundred acres in the Forest to be used for arboretum purposes. The area lies adjacent to the main University campus immediately across the road from the Chapel.

Through the generosity of Mr. W. W. Flowers, of New York, a member of the Class of 1894 and a Trustee of the University, it has been possible to develop preliminary plans and to make a number of plantings. This is naturally a long-time project, and many years will elapse before the Arboretum will be most useful and most attractive. The University Trustees' Committee on Forestry in their report to the Board refers to

the Arboretum as follows:

"The Arboretum should serve as a station for the study of trees and woody plants as individuals and in small groups in their scientific relations, economic properties, and cultural characteristics, requirements, and possibilities. It should render an economic service by acting as a research laboratory where trees and shrubs can be studied from the view-

point of a fuller utilization of their commercial possibilities. It should render a cultural service by serving as a center where foresters, land-scape architects, nurserymen, gardeners, and the general public may increase their knowledge of indigenous trees and shrubs and where they may become acquainted with the foreign species that can be grown here. Within the University the Arboretum will supply living specimens and material for several branches of botany and forestry."

The development of the Arboretum will proceed along these lines as

rapidly as available funds and planting stock will permit.

FELLOWSHIPS, SCHOLARSHIPS, AND RESEARCH ASSISTANTSHIPS IN FORESTRY

A number of fellowships, scholarships, and research assistantships are available to men who offer promise of becoming leaders in the forestry profession. These will be awarded for high character and marked scholastic ability as judged by education, experience, and personal references.

Holders of the awards will pay tuition and such additional fees as are

regularly required.

The awards are of three classes with stipends and special conditions as follows:

(1) Fellowships of \$600 each. Each recipient must have previously completed work equivalent to that required at Duke University for a Master's degree with major in forestry or in a discipline basic to forestry. He will devote his entire time to an approved program of study and research in any of the branches of forestry. He is expected to become a candidate for the degree of Doctor of Forestry or Doctor of Philosophy.

(2) Scholarships of \$250 each. Each recipient will normally devote his entire time to an approved program of study leading to the degree of Master of Forestry or Master of Arts with a major in forestry.

(3) Research assistantships of \$500 each. Each recipient will devote half-time to field, laboratory, or other work of the research program of the School of Forestry. He will be permitted to enroll for not more than 20 semester hours in a school year on a program of study, or study and research, leading to the degree of Master of Forestry, Master of Arts, Doctor of Forestry, or Doctor of Philosophy.

The following arrangements are common to all fellowships, scholar-

ships, and research assistantships in forestry:

(1) Each applicant must have received a Bachelor's degree from an acceptable professional school of forestry or must be a graduate of a recognized college or university. If an applicant is not a graduate of a school of forestry he must have had major work in botany or soil science and in the allied basic sciences. Each applicant must show reasonably high scholarship. Preference will be given to men who have already obtained technical or professional training in forestry.

(2) It is highly desirable that each applicant state as specifically as possible the field in which he wishes to study. The definite selection of a major field of work—one that is specific in purpose and involves train-

ing both in fundamentals and in technique—is very helpful to the Committee on Awards.

(3) Application blanks for fellowships, scholarships, and research assistantships may be obtained by writing to the Dean of the School of Forestry, Duke University, Durham, North Carolina. When the blank has been filled out by the applicant it should be returned to the above address, and an official transcript of record showing college or university credits must accompany it or be forwarded promptly. The application and transcript must be filed not later than March 1 for consideration for the following academic year. In case vacancies occur, applications submitted on a later date may be considered.

REQUIREMENTS FOR ADMISSION TO THE SCHOOL OF FORESTRY

The following general requirements of the School of Forestry apply to candidates for the Master of Forestry degree:

Admission to the School of Forestry presupposes that the applicant is either a graduate of a scientific school, college, or university of high standing, but without professional training in forestry; or that he is a graduate of a professional school of forestry of recognized standing. He will present not less than four years of credit of collegiate grade, with at least as many quality-points as hours.¹

An applicant with no professional training is forestry will present a certified transcript of his academic record showing that he has had conferred upon him a degree in arts, science, or engineering; and that he has satisfactorily completed undergraduate work in minimum amount as follows:

One year of botany, including the morphology, physiology, and identification of plants.

One year each of English and of chemistry.

One course each in physics and in the principles of economics.

Mathematics, through college algebra and trigonometry.

It is urged that an applicant without professional training in forestry present additional credits in the above subjects and in one or more of the following subjects: soils, geology, mineralogy, petrology, climatology, surveying, languages (particularly German and French), sociology, political science, philosophy, psychology, and zoology.

An applicant who is a graduate of a professional school of forestry of recognized standing will present a certified transcript of scholastic record showing the award of a degree. Before registering for the first semester of residence, such applicants will be required to select the branch or branches of forestry in which they wish to concentrate the major part of their work and to prepare their proposed programs in conference with the appropriate faculty advisor.

Students must make application for admission in advance of the open-

¹ Grades for each hour of college credit and also for credit earned in the School of Forestry are valued in quality-points as follows: A, 3 points; B, 2 points; C, 1 point; D, no points; and F, no credit and —1 point.

ing of the school year. Those students entering without acceptable courses in plane surveying, forest surveying, and forest mensuration must take the twelve weeks of work in these subjects in the Summer School, and are required to submit their applications prior to May 1. Students entering with advanced standing in surveying and forest mensuration should make application before September 1. Application blanks will be sent upon request made to the Dean of the School of Forestry.

REQUIREMENTS FOR THE DEGREE OF MASTER OF FORESTRY

The degree of Master of Forestry (M.F.) is conferred upon students who have satisfactorily completed two years of study in technical forestry and one term of twelve weeks' work in plane surveying, forest surveying, and forest mensuration in the Summer School. In addition to the Summer School work a total of not less than sixty semester hours' credit is required for the M.F. degree, of which at least fifty-five shall be obtained in the School of Forestry. Each student must obtain at least as many quality-points as semester hours' credit under the quality-point system described in footnote 1 of the preceding section.

A two weeks' field trip to typical timber-harvesting, manufacturing, and other forestry operations in the South is conducted by the School and is required as a part of the work in Forest Products Industries (Forestry 212). Other students in the School of Forestry may be permitted to take this trip as opportunities will be available for special work and observations in other branches of forestry in forest types not represented in the Duke Forest. One semester hour of credit may be earned for participation in the field trip by registering for it in Forestry 212A.

No student may take less than fifteen or more than eighteen hours in any one semester without special permission of the School of Forestry Faculty. The following work will be required of all candidates for the M.F. degree:

SUMMER SCHOOL

S.H.

Plane Surveying (C. E. S110)	
FIRST	YEAR
First Semester	Second Semester
S.H.	S.H.
Harvesting Forest Products (F. 211)	Forest Products Industries (F. 212)

SECOND YEAR

Silviculture (F. 265) 5	Forest Valuation (F. 282) 3
Forest Economics (F. 279) 3	Seminar (F. 292)
Forest Management (F. 281) 4	Thesis
Thesis	Electives
Electives	

Each candidate is required to file in the office of the Dean of the School of Forestry on or before May 15 three copies of a thesis, type-written and bound in accordance with regulations set forth by the Faculty. The thesis shall be based upon an original study made in the field, laboratory, or library.

Work of equivalent grade done in residence at recognized schools of forestry may, with the approval of the Faculty, be accepted as credit toward the M.F. degree. A minimum of one year's residence is required at Duke University. Students who have had satisfactory undergraduate training in forestry may, with the approval of the Faculty, elect to devote the major portion of their time to research under the supervision of one or more members of the Faculty and prepare a more comprehensive thesis than is required of students entering the School without previous work in forestry. Students in the School of Forestry may take in allied departments of the University as electives certain courses approved by the Faculty.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF FORESTRY

THE DEGREE

The degree of Doctor of Forestry is a research degree. It is based primarily upon evidence of high attainments in a special field of forestry knowledge and upon the production of a thesis embodying the results of original research. It is not based merely upon the completion of a prescribed period of study or upon the obtaining of credit for a given number of courses.

A student who plans to enter upon a program of work leading to the degree of Doctor of Forestry should consult or enter into correspondence with the Dean of the School of Forestry. He will then be advised as to the possibility of obtaining the necessary instruction and supervision of research in the special field desired.

RESIDENCE

The normal period of resident graduate study, following satisfaction of the general requirements for admission to the Duke School of Forestry, is a minimum of two academic years after the student has obtained the graduate professional degree of Master of Forestry, or its equivalent. At least one of these two years of graduate study must be spent in actual residence at Duke University. With the approval of the Faculty of the School of Forestry work of equal grade done in residence at another college or university, or at a research station or institute not connected

with a college or university, may be accepted toward a Doctor of Forestry degree. Only in connection with the preparation of the thesis will work be accepted that has been done elsewhere than in residence at a college, university, research station, or institute. A student whose undergraduate work is insufficient in amount or unsatisfactory in character may be required to spend additional time in preliminary courses essential as a basis for the graduate work he proposes to undertake.

Students whose research is concerned with the study of trees and forest stands in the Duke Forest during the growing season may find it necessary to be at the University during the summer.

Credit for one year of work done in regular sessions of the Summer School at Duke University may be given with the approval of the School of Forestry Faculty. Except in unusual cases, graduate work of fragmentary character taken over a long period of years, or work completed many years before the student becomes a candidate for the degree at Duke University, will not be accepted as satisfying the requirements of residence.

APPLICATION FOR CANDIDACY

No student will be admitted as a candidate for the degree of Doctor of Forestry until he has obtained the professional graduate degree of Master of Forestry or its equivalent, either at Duke University or at a professional school of forestry of recognized standing. A student desiring to become a candidate for the Doctor of Forestry degree is ordinarily required to file with the Dean of the School of Forestry, at the beginning of his graduate work toward this degree, a formal application indicating in which field and under what professor he proposes to carry on research. A committee of the Faculty will then be appointed to supervise the student's work, with the professor in charge of his research as chairman. If and when the committee finds that the preliminary requirements of the major field have been satisfied, the chairman of the committee will report the fact in writing to the Dean of the School of Forestry. In the case of students who come to Duke University for only the last year of graduate work, and in special cases approved by the School of Forestry Faculty, the application for recognition as a candidate for the Doctor of Forestry degree may be filed later than provided above, but not later than October 15 of the academic year in which it is desired that the degree be conferred.

PROGRAM OF STUDY

The program of study of a candidate for the Doctor of Forestry degree will be arranged after consultation with the committee provided for in the preceding section and is subject to the approval of the Dean and Faculty of the School of Forestry. The student must select a major field and one or two minor related fields. Both major and minor may be selected in different branches of forestry or the minor may be taken in a related field in some other school or department of Duke University.

FOREIGN LANGUAGES

A reading knowledge of two foreign languages is required. One language shall be either French or German, and the other optional to fit the requirements of the student's problem. No student can come up for his preliminary examination before having satisfied the language requirements for the Doctor's degree. Foreign language examinations are conducted by the appropriate language department, or in special cases, by a qualified member of the Faculty of Duke University.

PRELIMINARY EXAMINATION

Toward the end of the first full year of graduate work for the Doctor of Forestry degree (or in special cases early in the second year), a preliminary examination of each candidate will ordinarily be held covering the general field of his studies. This examination will be conducted by the committee in charge of the student's work and will be written. A student who passes the examination will be recognized as a candidate for the Doctor of Forestry degree. A student's major and minor subjects will ordinarily be included in this preliminary examination.

If a student fails on his first examination, he may make a second attempt after six months upon recommendation of his committee and the approval of the Dean of the School of Forestry. Two failures on this examination make the student ineligible to continue work toward the Doctor of Forestry degree at Duke University.

THESIS

The thesis for the Doctor of Forestry degree must be a contribution to knowledge. The subject of the thesis must be filed with the Dean of the School of Forestry on or before October 15 of the academic year in which the candidate desires to take the final examination for his degree. The subject must receive the written approval of the professor under whom the thesis is being written and of the Dean of the School of Forestry. The thesis must be completed to the satisfaction of the major professor. Four typewritten copies in approved form must be deposited with the Dean of the School of Forestry on or before May 1 if the student desires to be examined on the thesis in the same academic year. The title page must be approved by the Dean of the School of Forestry. Two of the copies, the original and a carbon copy, are placed in the School of Forestry library, one copy goes to the major advisor, and one is returned to the student.

The candidate's thesis must be published either in its original form or in a modified form approved by the Dean of the School of Forestry and the committee in charge of the candidate's work. In its published form the title page should include this statement: "A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Forestry in the School of Forestry of Duke University." Ten copies of the published thesis should be deposited in the office of the Dean of the School of Forestry within a reasonable time after publication. The de-

gree will not be conferred until publication of the thesis, in approved form, within three years has been guaranteed in a way satisfactory to the Dean of the School of Forestry and the professor under whom the thesis was written.

FINAL EXAMINATION

The final examination will be on the thesis and on related subject matter and will be oral. Approximately one year must elapse between the dates of the preliminary examination and the final examination, except in special cases approved by the School of Forestry Faculty. Two failures on this examination make a student ineligible to continue work toward the Doctor of Forestry degree at Duke University. The second examination may be given only upon the recommendation of the professor in charge of the thesis and the approval of the Dean of the School of Forestry.

GRADING

Members of the Faculty are expected to report grades of graduate students to the School of Forestry Office not later than February 15 for the first semester and not later than June 15 for the second semester on the cards provided for that purpose. An average grade of "B" or better will be required for all work, beyond that for the degree of Master of Forestry, that is to be credited toward the Doctor of Forestry degree. A mark of "Incomplete" may be given when a student has failed, for an acceptable reason, to complete some portion of the required work in which his standing is generally satisfactory. Unless a report is made within one year that the work has been satisfactorily completed, all credit will be lost.

FORESTRY IN THE GRADUATE SCHOOL

Graduate work toward the Master of Arts and Doctor of Philosophy degrees in the more scientific branches of forestry is available to adequately prepared students at Duke University. This work is given through the Division of Forestry of the Graduate School of Arts and Sciences by certain members of the School of Forestry Faculty.

The following special conditions will influence the acceptance of students for graduate study in forestry: The student must have received a degree from a professional school of forestry of recognized standing or from an approved college or university. Graduates of professional schools of forestry must also have had adequate training in liberal arts and sciences, approximating 86 semester hours, before being admitted to candidacy for the Master of Arts or Doctor of Philosophy degrees. College graduates who have had specialized training in botany or soil science and in allied basic subjects, such as physics, chemistry, geology, and zoology, may pursue graduate study and research only in the specialized fields for which their previous work has qualified them.

The Forestry Staff will determine whether a student is qualified to pursue graduate study in any of the special fields of forestry in which work is available.

The Master of Arts and Doctor of Philosophy degrees are attained through scientific work rather than technical or professional training in forestry. Work for these degrees may be pursued only in forest-tree physiology, wood anatomy and properties, forest pathology, forest entomology, silvics, forest soils, forest mensuration, forest management, and forest economics, except that a major cannot be taken in forest management. A student upon registration chooses a field of study which may lie in two or more departments. The members of the Graduate School Faculty best qualified in that field are named as the student's advisory committee, regardless of the department of which they are members. This committee will advise the student in the planning and conduct of his work and will evaluate it when completed.

A reading knowledge of French and German must be acquired early in the course of graduate study in forestry because much of the forestry literature of the world is written in or has summaries in these languages. For the Ph.D. degree the language requirement must be met before the preliminary examination is taken and usually before the preparation of the thesis is begun.

The length of time required for a student to obtain the Master of Arts and Doctor of Philosophy degrees in forestry is determined by the character of his previous work and by the quality of his work in the Graduate School. Upon the recommendation of the Forestry Staff and with the approval of the Council on Graduate Instruction, work of equal grade done in residence at another college or university, or at a research station or institute not connected with a college or university, may be

accepted toward a Ph.D. degree, but at least the last year or the first two years of graduate study must be spent in actual residence at Duke University. Only in connection with the preparation of the thesis will work be accepted that has been done elsewhere than in residence at a college, university, or research station.

Students whose research is concerned with the study of trees and forest stands in the Duke Forest during the growing season may find it

necessary to be at the University during the summer.

The field of study may include advanced work in allied subjects as well as advanced work in forestry. The student should have covered, however, most of the basic subjects prior to entering the Graduate School. The required advanced work will depend upon the student's previous training and the special field of study selected. Before beginning his work the student must obtain approval of his proposed program of study, including the plans for the research for his thesis. Courses of study must be correlated with each other and with the thesis research.

For further information on requirements for admission to the Graduate School of Arts and Sciences and on the general requirements for the Master of Arts and Doctor of Philosophy degrees reference should be made to the *Bulletin of the Graduate School of Arts and Sciences*.

COURSES AND SUBJECTS OF INSTRUCTION

With the exception of the summer school courses, odd-numbered courses are offered in the autumn semester, and even-numbered courses are offered in the spring semester.

IN THE SUMMER SCHOOL

C.E. S110. Plane Surveying.—A special section of C.E. S10 intended for students in Forestry and others of advanced standing. Three weeks, nine hours a day, beginning May 29. 3 s.h.

PROFESSORS BIRD AND W. H. HALL AND MR. WILLIAMS

S150. Forest Surveying.—Application of plane surveying to forest problems; practice in making boundary and topographic surveys of forested tracts, using both intensive and extensive methods. Work includes use of transit, level, traverse board, topographic abney and slope tape, and aneroid barometer. Prerequisites: Civil Engineering, S110, Plane Surveying, or equivalent. Five weeks, eight hours a day, beginning June 19. 5 s.h. (w)

ASSOCIATE PROFESSOR MAUGHAN

S151. Forest Mensuration.—Field studies in methods of measuring content and growth of trees and forest stands; practice in timber estimating, log scaling, use of mensurational instruments, and collection of basic data. Four weeks, eight hours a day, beginning July 24. 4 s.h. (w)

Professor Schumacher

211. Harvesting Forest Products.—Methods of harvesting and transporting to utilization plants all products obtained from forests, including saw logs, pulpwood, poles, ties, stave and veneer bolts, naval stores, distillation wood, and other commercial commodities, with emphasis on application of methods best adapted to managed forests in important forest regions of North America and consideration of costs. 3 s.h. (w)

PROFESSOR WACKERMAN

FOR SENIORS AND GRADUATES

- 212. Forest Products Industries.—Preparation, manufacture, and use of tree products for all purposes including lumber, paper, naval stores, veneer, cooperage, boxes, distillation, and other specialized products with emphasis on methods of manufacturing and kinds of wood required for various commodities. Inspection of typical forest operations and forest products manufacturing plants in the South during two weeks of spring semester. Prerequisite: Forestry 211 or equivalent. 3 s.h. (w)

 PROFESSOR WACKERMAN
- 213. Seasoning and Preservation of Wood.—Principles of seasoning lumber and other forest products by air drying and kiln drying, types of kilns and their operation; principles, methods, and materials used in treating wood to increase its durability. 3 s.h. (w)

 PROFESSOR WACKERMAN
- 214. Marketing Forest Products.—Methods of selling and distributing timber, lumber, and other forest products in domestic and foreign trade; transportation methods; promotional activities of trade associations; competition between producing regions for markets and problems arising from the development of wood substitutes. Prerequisites: Forestry 211 and 212, or equivalents. 3 s.h. (W)
- 224. Forest Pathology.—Special reference to diseases of forest trees. Prerequisites: Botany 1 and 2, and Forestry 253-254, or equivalents. 4 s.h. (w)

 Professor Wolf

- 231. Forest Entomology.-Morphology, general classification, life histories, and control of insects injurious to forest trees, logs, and lumber. 3

 PROFESSOR BEAL
- 236. Forest Game Management.—Characteristics and life histories of forest animals; interrelationship between animals and forests; management of forest animals for revenue; control of noxious species. 3 s.h. (w) Professor Beal
- 251. Sampling Methods in Forestry.—Statistical background for solution of sampling problems with special reference to sample inventory of a forest property. Prerequisite: Forestry S151. 2 s.h. (w) PROFESSOR SCHUMACHER
- 252. Forest Mensuration .- Empirical equations and curve fitting appropriate for construction of timber yield tables, tree volume and taper tables; significance tests and graphical solution of equations. Assignments require operation of calculating machines. Prerequisite: Forestry 251. 2 s.h. (w) Professor Schumacher
- 253-254. Dendrology.—Nomenclature, classification, and identification of woody plants with special reference to species indigenous to southeastern United States and other important forest regions of temperate North America. Laboratory and field work. Prerequisite: one year of botany. 4 s.h. (w) Associate Professor Harrar
- 256. Wood Pulp and Pulp Products .- Characteristics of pulp and paper fibres; processes employed in pulp manufacture; methods of refining and testing pulps; theory and practice of bleaching and hydration; the manufacture of papers and other cellulose derivatives. Prerequisites: Forestry 212 and 259, or equivalents. 3 s.h. (w) Associate Professor Harrar
- 257. Design of Forestry Experiments and Analysis of Data.-Role of experimental design in field and laboratory, and statistical analysis of data as aspects of scientific method in forest research. 5 s.h. (w) Professor Schumacher
 - 259. Wood Anatomy and Properties.—Anatomical, chemical, and non-
- mechanical physical properties of wood; macroscopic and microscopic identification of more important woods of the United States. Prerequisites: one year of Botany and Chemistry 1 and 2, or equivalents. 3 s.h. (w) Associate Professor Harrar
- 260. Timber Mechanics.—Comprehensive study of mechanical properties of wood and factors affecting its strength; strength-moisture relationships; standard methods of timber testing and application of strength data in development of working stresses; use of graphic statics in analysis of stress in wooden structures. Prerequisites: Physics 1 and Forestry 259, or equivalents. 3 s.h. (w) ASSOCIATE PROFESSOR HARRAR
- 261. Forest Soils.-Origin, development, and classification of soils with special emphasis on those developed in climates supporting forests; morphological, physical, and chemical properties of soils in relation to growth of trees; field identification, field sampling, laboratory analysis, and interpretation of field and laboratory observations; interrelationships of soil and forest cover. Prerequisites: Chemistry 1 and 2, and Physics 1, or equivalents; physical geology and analytical chemistry are also desirable. 3 s.h. (w) Assistant Professor Coile
- 264. Silvics.—Ecological foundations of silviculture with special reference to forest site factors; influence of forests on their environment; growth and development of trees and stands; origin, development, and classification of forest communities; methods of studying forest environments. Desirable prerequisites: plant physiology, plant ecology, and Forestry 253-254 and 261, or equivalents. 3 s.h. (w) PROFESSOR KORSTIAN

- 265. Theory and Practice of Silviculture.—Principles governing natural regeneration and treatment of forest stands and their application to main commercial forest species, types, and regions of temperate North America; reproduction methods, intermediate cuttings, cultural operations, and silvicultural plans. Field practice includes marking timber for various kinds of cuttings, cultural treatments, preparation of plans for silvicultural treatment of forests, and study of intensively managed forests. Prerequisite: Forestry 264 or equivalent. 5 s.h. (w)
- 266. Forest Seeding and Planting.—Place of artificial regeneration in practice of forestry; reforestation surveys and plans; collection, extraction, cleaning, testing, and storage of forest tree seeds; direct seeding; nursery practice; forest planting. 2 s.h. (w)

 PROFESSOR KORSTIAN
- 273. Forest Protection.—Fundamental principles of forest protection; protection against atmospheric agencies, injurious plants, insects, domestic animals, and wild life; causes of forest fires and their prevention; presuppression activities; fire suppression; fire control costs and standards; fire plans. 2 s.h. (w)

 Associate Professor Thomson
- 276. Forest Policy.—Critical study of forestry movement and development of a forestry policy, particularly in United States; brief résumé of forestry in important foreign countries; public land laws of United States; development of Federal and State forestry; forestry laws. 2 s.h. (w)

Associate Professor Thomson

279. Economics of Forestry.—Principles of forest economics. Economic and social values of forests; forest resources and wood requirements; economics of wood production and consumption; prices of forest products; forestry and public finance; forestry and land use; forestry credit; forest fire insurance; forestry as a private business enterprise. Prerequisite: at least one course in the principles of economics. 3 s.h. (w)

Associate Professor Thomson

- 281. Forest Management.—Principles of organizing forest properties for systematic management including surveys, inventories, subdivision, and preparation of management plans for control of operations; principles of forest regulation, actual and normal forests, rotations, cutting cycles, and methods of regulating the cut for sustained yields. Prerequisites: Forestry S150, S151, and 251, or equivalents. 4 s.h. (w)

 ASSOCIATE PROFESSOR MACGHAN
- 282. Forest Valuation.—Principles involved in appraising value of forests as business enterprises; valuation of land and timber, soil rent and forest rent theories, cost values, market values and capital values, profit, and rate earned; appraisal of stumpage values and damage appraisals; financial aspects of sustained yield management compared with destructive logging. Prerequisite: Forestry 281 or equivalent. 3 s.h. (w)

Associate Professor Maughan

- 292. Seminar.—Interrelation of various branches of forestry in their application to forestry problems; assigned topics with special reference to current forestry activities. 1 s.h. (w)
- 211A to 282A. Special Studies in Forestry.—Work on the same level as the foregoing Senior-Graduate courses to meet the needs of individual students. Credits and hours to be arranged.

 The Staff

FOR GRADUATES

301-302. Advanced Studies in Forestry.—Credits to be arranged. To meet individual needs of graduate students in the following branches of forestry:

- a. Silvics.—Prerequisite: Forestry 253-254, 261, and 264 or equivalents.

 Professor Korstian
- b. Forest Soils.—Prerequisite: Forestry 261 or equivalent.

 Assistant Professor Coile
- c. Silviculture.—Prerequisite: Forestry 265 or equivalent.

 Professor Korstian
- d. Forest Management.—Prerequisite: Forestry 281 or equivalent.

 Associate Professor Maughan
- e. Forest Economics.—Prerequisite: Forestry 279 or equivalent.

 Associate Professor Thomson
- f. Wood Anatomy and Properties.—Prerequisites: Forestry 259 and 260, or equivalents.

 Associate Professor Harrar
- g. Forest Mensuration.—Prerequisites: Forestry S151, 251, and 252, or equivalents.

 Professor Schumacher
 - h. Forest Entomology.—Prerequisite: Forestry 231 or equivalent.

 Professor Beal
 - i. Forest Utilization.—Prerequisites: Forestry 211 and 212, or equivalents.

 Professor Wackerman
 - j. Dendrology.—Prerequisite: Forestry 253-254 or equivalent.

 Associate Professor Harrar
- 311. Advanced Forest Utilization.—Analysis of the principles of determining the cost of and returns from harvesting timber for various products and other uses of forests; study of factors governing the relation of tree size to net stumpage values; and the application of these principles and methods in the solution of actual case problems. Prerequisite: Forestry 211 or equivalent. 2 s.h. (w)

 Professor Wackerman
- 323-324. Advanced Forest Pathology.—Advanced study and research on life histories and control of diseases of forest trees to meet individual needs of graduate students. Prerequisites: plant physiology and forest pathology. Credits to be arranged.

 PROFESSOR WOLF
- 351-352. Advanced Physiology of Forest Trees.—Advanced study and research on problems in physiology of forest trees to meet individual needs of graduate students. Prerequisites: plant physiology and plant ecology or silvics. Credits to be arranged.

 Associate Professor Kramer
- 354. Forest Soil Fertility.—Experimental approach to the problems of fertility in forest soil. Influence of stand composition on nitrogen transformation. Methods of studying the exchange complex and the significance of base exchange in forest soil fertility. Prerequisites: Forestry 251 and 261, and plant physiology, or equivalents; bacteriology and analytical and organic chemistry are desirable. 3 s.h. (w)

 Assistant Professor Coile
- 356. Economic Forces in Forestry.—Analysis of classical and contemporary theories of forest valuation. Principles underlying the measurement of forces determining forestry values. Prerequisites: Forestry 279 and 282, or equivalents; courses in economic theory are desirable. 2 s.h. (w)

 ASSOCIATE PROFESSOR THOMSON
- 357-358. Research in Forestry.—Credits to be arranged. Students who have had adequate training may do research under direction of members of the Faculty in the branches of forestry indicated under Courses 301-302 with the same prerequisites as thereunder noted. Each branch to bear the same letter designation as under Courses 301-302.

 The Staff

FEES AND EXPENSES

The following tables show the general fees and charges collected from all students and the special fees collected from those taking laboratory courses. All fees for each semester are due and payable, unless otherwise specified, at the time of registration at the beginning of that semester, and no student is admitted to classes until arrangements have been made with the Treasurer of the University for the settlement of fees.

GENERAL FEES

Matriculation, per semester\$	25.00
Tuition, per semester	
Room-rent—See the detailed statement that follows.	
Athletic Fee, admitting students to all athletic contests held on the	
University grounds, per semester	5.00
Damage Fee, payable annually at the time of first registration	1.00
Medical Fee, per semester	5.00
Library Fee, per semester	5.00
Commencement Fee, payable once by graduate students in the last	
semester before a degree is conferred	3.00
Diploma Fee, payable by candidates for degrees at the beginning of	
the second semester, refunded if the diploma is not awarded	5.00
For further information concerning room-rent, see below.	

SPECIAL FEES

Graduate students in the sciences are required to pay the special laboratory fees for courses as fixed by the various departments. An administrative fee is charged in connection with special research in the summer under direction of a member of the Faculty. Special laboratory and materials fees in forestry are as follows:

Forestry	224,	253-254,	259,	260, 2	264,	357a,	and	358a.	\$2.50
									\$2.50 to \$5.00

TRANSCRIPTS

A student desiring to transfer from Duke University to another institution is entitled to one transcript of his record. A charge of one dollar is made for each additional copy.

PAYMENTS TO FELLOWS AND SCHOLARS

Payments by the University of stipends to fellows and scholars are made in four installments, on November 25, January 25, March 25, and May 25. Fellows and scholars are required to pay the regular tuition fee and such additional fees as are ordinarily required of graduate students.

ROOMS AND CONDITIONS OF RENTING THEM

ROOM-RENT FOR MEN OF DUKE UNIVERSITY

Rooms are reserved only for students who have been officially accepted by the University. They are rented for no shorter period than one semester. The occupancy of a room for a period of less than one semester will cost the student \$1.00 each day unless the occupant makes the necessary arrangements with the Director of the Business Division before occupying the room. A room deposit of \$25.00 is required of each applicant for admission. The fee is deducted from the room charges at the time of registration for the full semester. The reservation fee will be refunded to any applicant not accepted by the University provided the official receipt for the fee, given to all paying it, is presented either in person or by letter to the Treasurer's Office, but students who make application and are accepted will not be entitled to have the reservation fee refunded unless the request is made on or before August 1.

A resident student who wishes to retain his room for the succeeding year must first pay a reservation fee of \$25.00 to the Treasurer's Office and then notify the office of the Director of the Business Division on or before May 15. All rooms which have not been signed for on or before May 15 will be considered vacant for the succeeding year. When a room is once engaged by a student, no change will be permitted except with the consent of the Director of the Business Division. Leaving one room and occupying another without permission is strictly against the rule and will render the offender liable to a charge for both rooms for the entire semester. No occupant is permitted to rent or sublet a room to another occupant. The use of a room for merchandising of any kind is strictly forbidden.

The University does not assume the responsibility of selecting and assigning roommates, though it will gladly render any assistance possible in the matter.

DORMITORIES FOR MEN

On the West Campus there are four groups of dormitories, Craven, Crowell, Kilgo, and Few. Each group forms a quadrangle enclosing a court. Few Quadrangle is reserved especially for the use of graduate and professional school students.

BOARDING ACCOMMODATIONS

West Campus.—Beginning with the academic year 1930-31 the University opened its dining hall in the Union on the West Campus with accommodations sufficient to provide in a superior way for all resident men students. It is the policy of the University to furnish board to its students at actual cost. Charges for board will not exceed \$25.00 per month.

The Union is the logical center of student activities for men, and it will be found desirable for male students to board in its supervised halls. In the Union are located the University Post Office, the University Store, the University Barbershop, and all publication staff offices.

In addition to the Union dining halls a coffee shop is operated for the convenience of students and visitors.

ESTIMATED EXPENSES FOR AN ACADEMIC YEAR

The necessary expenses of a graduate student are moderate; the University dormitories provide thoroughly comfortable and wholesome living conditions at a minimum cost, while all charges made by the University have been kept low. Incidental expenses naturally depend upon the tastes and habits of the individual. The following table gives the necessary college expenses for one year:

	Low	Moderate	Liberal
Tuition	\$200.00	\$200.00	\$200.00
Matriculation	50.00	50.00	50.00
Room-rent	. 100.00	125.00	150.00
Board	225.00	225.00	225.00
Laundry	20.00	25.00	30.00
Books	22.50	30.00	45.00
Library Fee	10.00	10.00	10.00
Athletic Fee	. 10.00	10.00	10.00
Damage Fee	. 1.00	1.00	1.00
Medical Fee		10.00	10.00
Total	. \$648.50	\$686.00	\$731.00

ENROLLMENT, 1940-41

STUDENTS IN THE SCHOOL OF FORESTRY

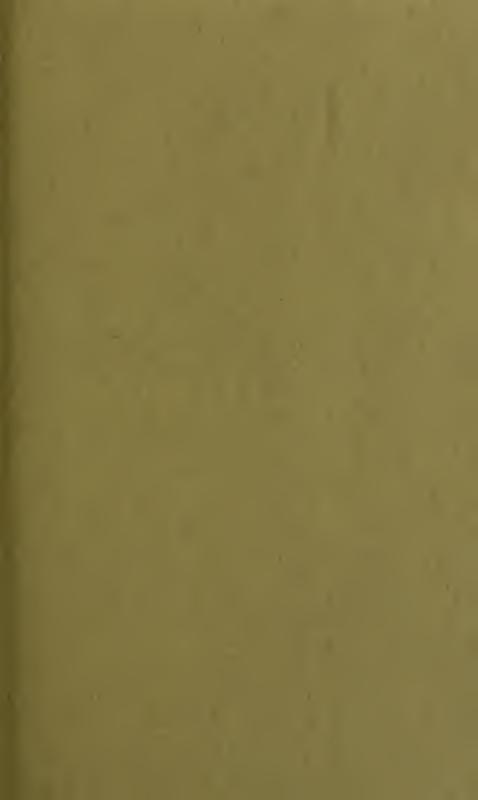
*Applequist, Martin BenjaminCouncil Bluffs, Iowa B.S., Iowa State College, 1940	HH-216
*Baldwin, Alan Thorrestrup Wilmington, Del. (Candidate for B.S. degree, Duke University, 1941)	808 Third Street
**Barney, Charles WesleyCuba, N. Y. B.S., New York State College of Forestry, 1938 M.S., University of Vermont, 1939	918 Urban Avenue
*Bew, James WilliamMargate City, N. J. (Candidate for B.S. degree, Duke University, 1941)	HH-313
*Bigger, William ParkerPyengyang, Korea, Jap B.S., Duke University, 1939	an HH-219
Bjorson, Richard	Buchanan Boulevard
*Brabec, Joe M., Jr	918 Urban Avenue
*Davis, Richard EdwardsGreensboro, N. C. B.S.F., North Carolina State College, 1940	HH-024
*Dunn, Willard BruceKennerdell, Pa. B.S.F., North Carolina State College, 1940	HH-218
*Ernst, William, JrKansas City, Kan. 116 B.S., Colorado State College, 1939	Buchanan Boulevard
*Fillas, Theodore JamesLafayette, Colo. B.S., Colorado State College, 1940	918 Urban Avenue
Frazier, John RhettBlairs, S. C. B.C.E., Clemson Agricultural College, 1940.	HH-219
*Gaiser, Richard NicholsonNiagara Falls, N. Y. B.S., University of California, 1938	HH-120
Geltz, Charles GottliebWest Lafayette, Ind.	
B.S.F., Pennsylvania State Forest School, 1924 M.S., University of California, 1927	versity Apts., N-1-A
*Gira, Paul AmbroseCuster, S. D. B.S., Colorado State College, 1940	918 Urban Avenue
*Guerrant, William HepbourneCallaway, Va. B.S., Pennsylvania State College, 1940	HH-024
*Hagenstein, William DavidSeattle, Wash. B.S.F., University of Washington, 1938	2103 Huron Circle
*Heller, Robert ChesterEast Orange, N. J. B.S., Duke University, 1940	HH-313
*McClintick, KeithLapel, Ind. B.S.F., University of Georgia, 1940 * Candidate for the degree of Master of Forestry in 1941. ** Candidate for the degree of Doctor of Forestry.	Lakewood Avenue

Moberg, Theodore RussellAlbuquerque, N. M. 2020 Huron Circle B.A., University of Texas, 1936
*Morgan, Kenneth JamesAlbany, N. Y. Duke University B.S., Cornell University, 1934
*Petersen, William BentzMissoula, Mont. 1801 Lakewood Avenue B.S.F., Montana State University, 1938
Stiver, Edward NobleMuncie, Ind. B.S.F., Purdue University, 1940 HH-221
*Watkins, Virgil Gray Kent's Store, Va. 916 Buchanan Boulevard B.S., University of Virginia, 1937
Wellwood, Robert William Victoria, B. C., Canada Duke University B.A.Sc., University of British Columbia, 1935 M.F., Duke University, 1939
White, Raymond Albert, JrAudubon, N. J. Duke University B.S., Pennsylvania State College, 1940
Young, Harold EdleMiami, Fla. HH-220 B.S., University of Maine, 1937 Total
PRE-FORESTRY SENIOR IN THE SCHOOL OF FORESTRY
Carr, Herbert
STUDENTS OF FORESTRY IN THE GRADUATE SCHOOL OF ARTS AND SCIENCES
Bronson, Arthur HaroldBrooklyn, N. Y. 1103 Englewood Avenue B.S., New York State College of Forestry, 1940
Jemison, George MeredithAsheville, N. C. University Apts., C-1-C B.S., University of Idaho, 1931 M.F., Yale University, 1936
Kozlowski, Theodore ThomasBuffalo, N. Y. 1103 Englewood Avenue B.S., New York State College of Forestry, 1939
Massey, Calvin LeRoy
INSTITUTIONS REPRESENTED
Clemson Agricultural College . 1 Purdue University . 1 Colorado State College . 5 University of British Columbia . 1 Cornell University . 1 University of California . 2 Duke University . 6 University of Georgia . 2 Iowa State College . 1 University of Idaho . 1 Montana State University . 1 University of Maine 1 New York State College . University of Texas . 1 of Forestry 3 University of Vermont . 1 North Carolina State College . 2 University of Virginia . 1 Pennsylvania State College . 2 University of Washington . 1 Pennsylvania State Forest School 1 Yale University

GEOGRAPHICAL DISTRIBUTION

United States

Colorado 2 Delaware 1 Florida 1 Kansas 1 Indiana 3 Iowa 1 Montana 1 Nebraska 1 New Jersey 3	New Mexico 1 New York 6 North Carolina 2 Ohio 1 Pennsylvania 1 South Carolina 1 South Dakota 1 Virginia 2 Washington 1 Total States 18
Foreign (Countries
Canada 1	Japan
GENERAL	SUMMARY
Students in the School of Forestry Pre-forestry Senior in the School of I Students of Forestry in the Graduate S	Forestry 1
Total Enrollment	
Total number of institutions represent Total number of states represented Total number of foreign countries repr	





February, 1941¹

VOLUME 13

NUMBER 3

BULLETIN OF DUKE UNIVERSITY

The School of Nursing, 1941



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DURHAM, NORTH CAROLINA

ANNUAL BULLETINS

FOR GENERAL BULLETIN of Duke University, apply to *The Secretary*, Duke University, Durham, N. C.

FOR BULLETIN OF UNDERGRADUATE INSTRUCTION, apply to The Secretary, Duke University, Durham, N. C.

FOR BULLETIN OF THE GRADUATE SCHOOL OF ARTS AND SCIENCES, apply to The Dean of the Graduate School, Duke University, Durham, N. C.

FOR BULLETIN OF THE SCHOOL OF FORESTRY, apply to The Dean of the School of Forestry, Duke University, Durham, N. C.

FOR BULLETIN OF THE SCHOOL OF LAW, apply to The Dean of the School of Law, Duke University, Durham, N. C.

FOR BULLETIN OF THE SCHOOL OF MEDICINE, apply to The Dean of the School of Medicine, Duke University, Durham, N. C.

FOR BULLETIN OF THE SCHOOL OF NURSING, apply to The Dean of the School of Nursing, Duke University, Durham, N. C.

FOR BULLETIN OF THE SCHOOL OF RELIGION, apply to The Registrar of the School of Religion, Duke University, Durham, N. C.

For Bulletin of The College of Engineering, apply to *The Secretary*, Duke University, Durham, N. C.

FOR BULLETIN OF THE SUMMER SCHOOL, apply to The Director of the Summer School, Duke University, Durham, N. C.

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BULLETIN

OF

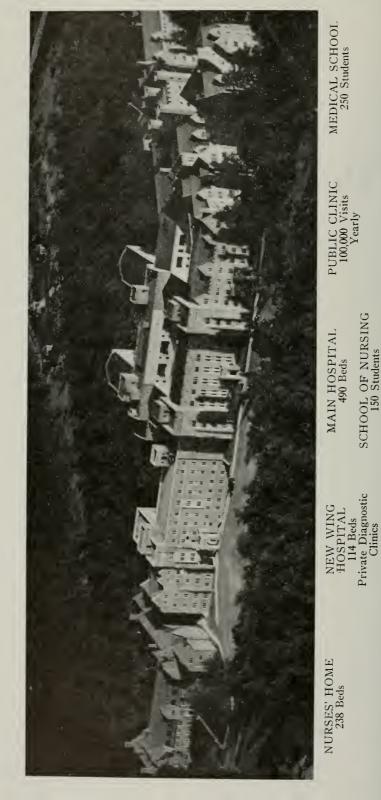
DUKE UNIVERSITY

THE SCHOOL OF NURSING



1941

DURHAM, NORTH CAROLINA 1941



SCHOOL OF NURSING 150 Students

FOREWORD

This bulletin is issued for prospective students of nursing. Admissions into any class are made only on the understanding that every decision of the School of Nursing Committee shall apply to all students, even though it is made subsequently to their enrollment in the School. At frequent intervals the Committee reviews the records of all students, and those whose progress has been unsatisfactory may be required to leave the School. Only those will be advanced who, in the opinion of the committee, give promise of being a credit to themselves and to the school.

SCHOOL OF NURSING AND HOSPITAL CALENDAR 1940-1941

1940

Oct. 2. Wednesday-Autumn Quarter begins.

Nov. 28. Thursday: Thanksgiving: a holiday.

Dec. 20. Saturday-Autumn Quarter ends.

1941

Jan. 6. Monday-Winter Quarter begins.

March 22. Saturday-Winter Quarter ends.

March 24. Monday-Spring Quarter begins.

April 14. Easter Monday: a holiday.

June 2. Monday—Commencement.

June 7. Saturday-Spring Quarter ends.

June 16. Monday-Summer Quarter begins.

July 4. Friday—Independence Day: a holiday.

Aug. 30. Saturday—Summer Quarter ends.

Oct. 2. Thursday-Autumn Quarter begins.

Nov. 27. Thursday—Thanksgiving: a holiday.

Dec. 20. Saturday-Autumn Quarter ends.

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OFFICERS OF ADMINISTRATION

*WILLIAM PRESTON FEW, A.B., A.M., Ph.D., Litt.D., Ed.D., L.H.D., LL.D.

President of the University

**ROBERT LEE FLOWERS, A.M., LL.D.

President of the University

WILLIAM HANE WANNAMAKER, A.B., A.M., Litt.D. Vice-President

CHARLES BLACKWELL MARKHAM, A.B., A.M.

Assistant Treasurer

MARGARET ISABEL PINKERTON, R.N., B.S.

Dean of the School of Nursing

^{*} Deceased. October 16, 1940. ** Elected January 29, 1941.

FACULTY OF THE SCHOOL OF NURSING

BESSIE BAKER, R.N., B.S.

Dean Emeritus of the School of Nursing

Diploma, Johns Hopkins Hospital School of Nursing, 1902; Assistant Director of Nursing, Women's Hospital, 1910-12; Assistant Director of Nursing, Johns Hopkins Hospital, 1912-17; Chief Nurse, Base Hospital No. 18, A. E. F., 1917-19; B.S. and Diploma in Administration in Schools of Nursing, Teachers College, Columbia University, 1922; Director of Nursing at Charles T. Miller Hospital, St. Paul, and Assistant Professor of Nursing, University of Minnesota, 1922-30; Dean of the School of Nursing and Professor of Nursing Education, 1930-39.

MARGARET ISABEL PINKERTON, R.N., B.S.

Dean of the School of Nursing and Professor of Nursing Education

Diploma, University of Virginia Hospital School of Nursing, 1927; Assistant Superintendent of Nurses, Stuart Circle Hospital, Richmond, Va., 1928-30; Hostess, University of Virginia Hospital, 1930-31; Assistant Superintendent of Nurses, University of Virginia Hospital, 1931-35; B.S. in Nursing Education, Teachers College, Columbia University, 1936; Nursing Arts Instructor, Washington University School of Nursing, St. Louis, Mo., 1936-37; Superintendent of Nurses, Barnes Hospital, 1938-39; Dean of the School of Nursing and Professor of Nursing Education, 1939—.

MARY WALKER RANDOLPH, R.N., B.S., A.M.

Assistant Professor of Nursing Education

B.S., University of Virginia; M.A., Teachers College, Columbia University; Diploma, Los Angeles General Hospital, Los Angeles, Calif., 1924; Field Nurse, T.B.C. Education, Virginia Department of Health, Richmond, 1925-26, 1928-29; Operating Room Nurse, Rutherford Co. Hospital, Murfreesboro, Tenn., 1927-28; Instructor of Nurses, Norfolk General Hospital, Norfolk, Va., 1932-34; Instructor and Assistant Superintendent of Nurses, Post Graduate School, Morristown Memorial Hospital, Morristown, N. J., 1934-37; Nursing Arts Instructor, Lenox Hills Hospital, New York, N. Y., 1937-41; Assistant Professor of Nursing Education, 1941—.

JULIA ELIZABETH WHITE, A.B., R.N.

First Assistant to the Dean

A.B., Newberry College, Newberry, S. C., 1927; Diploma, Johns Hopkins Hospital School of Nursing, 1930; Head Nurse, Assistant Night Supervisor, Harriet Lane Home, Johns Hopkins Hospital, 1930-32; Assistant Night Supervisor, Duke Hospital, 1933-36; First Assistant to the Dean, 1936—.

MARGARET ELIZABETH DUDLEY, R.N.

Second Assistant to the Dean

Diploma, University of Virginia School of Nursing, 1927; Assistant Superintendent of Nurses, Rockingham Memorial Hospital, Harrisonburg, Va., 1927-35; Anesthetist, Jefferson Hospital, Roanoke, Va., 1935-36; Surgical Supervisor, Sibley Hospital, Washington, D. C., 1937; Assistant Director Nursing Service, Jewish Hospital, Cincinnati, Ohio, 1937-40; Second Assistant to the Dean, 1940—.

HILDA CLAIRE BURNHAM, R.N.

Instructor in Principles and Practice of Nursing

Diploma, Johns Hopkins Hospital School of Nursing, 1930; Head Nurse, Isolation Ward, Johns Hopkins Hospital, 1930-31; Assistant Night Supervisor, Johns Hopkins Hospital, 1931-33; Night Supervisor, Osler Medical Clinic, Johns Hopkins Hospital, 1931-37; Medical Supervisor and Ward Instructor, Osler Medical Clinic, Johns Hopkins Hospital, 1934-37; Medical Supervisor and Instructor in Medicine, Duke Hospital, 1937-39; Second Assistant to the Dean, 1939-40; Instructor of Principles and Practice of Nursing, 1940—.

MARION FRANCES BATCHELDER, R.N.

Instructor in Operating Room Technique, Supervisor of the Operating Room

Diploma, Peter Bent Brigham Hospital School of Nursing, Boston, Mass., 1920; Head Nurse, 1921-23; Supervisor of Operating Room, Peter Bent Brigham Hospital, 1923-27; Head Nurse, Operating Room, Johns Hopkins Hospital, 1927-30; Supervisor of Operating Room, 1930—.

MILDRED M. SHERWOOD, R.N.

Instructor in Pediatrics and Supervisor of Pediatric Service

Diploma, Mount Sinai Hospital, New York City, 1923; Head Nurse, Mount Sinai Hospital, 1923-26; Head Nurse, Johns Hopkins Hospital, 1926-30; Instructor in Pediatrics and Supervisor of Pediatric Service, 1930-...

MARIAN WENRICH, R.N., A.B., B.S., A.M.

Instructor in Obstetrics and Gynecology, and Supervisor of Obstetrical and Gynecological Service

A.B., Mount Holyoke College, S. Hadley, Mass., 1926; B.S. in Nursing, Yale University School of Nursing, New Haven, Conn., 1929; M.A., Columbia University Teachers College, New York, 1940; Assistant Head Nurse, New Haven Hospital, 1929; Head Nurse, University of Pennsylvania Hospital, Philadelphia, Pa., 1930; Instructor and Supervisor of Obstetrics and Gynecology, Yale University School of Nursing, 1930-39; Instructor and Supervisor of Obstetrics and Gynecology, 1940—.

MARY SCHMITT, A.B., R.N.

Instructor in Psychiatric Nursing and Supervisor of Psychiatric Service

Diploma, Latrobe School for Nurses, Latrobe, Pa., 1932; Post Graduate Psychiatric Nursing, Cook County School for Nurses, Chicago, Ill., 1933; Assistant Head Nurse, Cook County School for Nurses, 1934-35; A.B., Pennsylvania College for Women, 1938; Graduate Study, Duke University, 1938-40; Instructor in Psychiatric Nursing and Supervisor of Psychiatry Nursing, 1940—.

CATHARINE D. VAN BLARCOM, R.N., B.S.

Instructor in Medical Nursing and Supervisor of Medical Service

Diploma, Muhlenberg Hospital, Plainfield, N. J., 1935; Night Charge Nurse in Operating Room, Muhlenberg Hospital, 1935-36; Ward Instructor, Muhlenberg Hospital, 1936; University of Virginia, B.S. in Nursing, 1937-40; Medical Supervisor and Instructor of Medical Nursing, 1940—.

VERA VIRGINIA THOMAS, R.N.

Instructor in Surgery and Supervisor of Surgical Service

Diploma, Duke University School of Nursing, 1935; General Duty, 1935-36; Head Nurse, Men's Surgical Ward, 1936-40; Instructor of Surgery and Supervision of Surgical Nursing, 1940--.

RUTH BARTON, R.N., B.S.

Assistant Instructor in Principles and Practice of Nursing

Diploma, Duke University School of Nursing, 1939; B.S., 1939; Assistant Instructor of Principles and Practice of Nursing, 1939—.

EDNA BRIX, R.N.

Assistant Science Instructor

Diploma, Lenox Hills Hospital School of Nursing, New York City, 1938; Assistant Science Instructor, Lenox Hills Hospital, 1938-40; Head Nurse, Woman's Surgical Ward, Lenox Hills Hospital; Assistant Science Instructor, 1941—.

AUGUSTA LAXTON, R.N., B.S.

Night Supervisor

B.S., Florida State College for Women, 1921; Diploma, Johns Hopkins Hospital School of Nursing, 1926; District Nurse, Co-operative Nursing Association, Charlotte, N. C., 1928-30; Night Supervisor, Duke Hospital, 1930-36; Head Nurse, Maternity Clinic, Charlotte, N. C., 1936-39; Night Supervisor, 1939—.

MARY C. WILLIAMS, R.N.

Assistant Night Supervisor

Diploma, Duke University School of Nursing, 1936; Pediatrics Supervisor, Sternberger Hospital, Greensboro, N. C., 1937; Medical Social Worker, North Carolina Commission for the Blind, Raleigh, N. C., 1937-39; Night Supervisor, Sternberger Hospital, Greensboro, N. C., Feb., 1939-Nov., 1939; Assistant Night Supervisor, Nov., 1939—.

SARA LOUISE JARRETT, R.N., B.S.

Health Nurse

St. Genevieve of the Pines Junior College, Asheville, N. C., 1933-35; Diploma, B.S. in Nursing, Duke University School of Nursing, 1938; Assistant Head Nurse, Duke Hospital, 1938; Evening Supervisor, Duke Hospital, 1938-39; Head Nurse, Norwalk General Hospital, Norwalk, Conn., 1939-40; Health Nurse, Duke Hospital, 1940—.

ASSISTANT SUPERVISORS AND HEAD NURSES

OLGA R. SCHULZ, R.N.

Assistant Supervisor of the Operating Room

Diploma, Lutheran Training School, Sioux City, Iowa, 1936; Postgraduate course in Operating Room Technique, Washington University School of Nursing, St. Louis, Mo.; Office Nurse, Lutheran Hospital, Sioux City, Iowa, 1936-37; Scrub Nurse, Lutheran Hospital, Omaha, Neb., 1937-38; Operating Room Supervisor, Lutheran Hospital, Omaha, Neb., 1938-40; Head Nurse, Endoscopy Department, Barnes Hospital, St. Louis, Mo., 1940; Assistant Supervisor of the Operating Room, 1941—.

DORIS SAWYER, R.N.

Acting Instructor and Supervisor of Nursing Service in Dispensary

Diploma, Roanoke Rapids School of Nursing, Roanoke Rapids, N. C., 1933; Supervisor, Surgical Department, 1934; Postgraduate Work, St. Elizabeth's Hospital, Washington; Postgraduate Work, Lying-In Hospital, Providence, R. I., 1935; General Duty, Duke Hospital, 1936-40; Acting Instructor and Supervisor of Nursing Service in Dispensary, 1940—.

MILDRED POYTHRESS SMITH, R.N.

Head Nurse on Private Medical Ward

Diploma, Hospital of the Protestant Episcopal Church, Philadelphia, Pa., 1936; General Duty, Duke Hospital, 1936-37; Senior Duty, 1937-40; Head Nurse, Private Medical Ward, 1940—.

MADELINE DAVIS BROWN, R.N.

Head Nurse on Women's Medical Ward

Diploma, Sinai School of Nursing, Baltimore, 1935; General Duty, 1935-38; Head Nurse, Women's Medical Ward, 1938-.

FRANCES M. KLEIN HENDERSON, R.N.

Head Nurse on Men's Medical Ward

Diploma, Duke University School of Nursing, 1934; General Duty, 1934-35; Assistant Head Nurse, 1935-36; Head Nurse, Duke Hospital, 1936-37; General Duty, Emergency Hospital, Washington, D. C., 1937-38; Head Nurse, Men's Medical Ward, 1938—.

FERRIS JONES LYTTLE, R.N.

Head Nurse on Colored Medical and Surgical Ward

Guilford College, Greensboro, N. C., 1929-30; Diploma, St. Leo's Hospital, Greensboro, N. C., 1934; Private Duty, Greensboro, 1934-35; General Duty, Duke Hospital, 1935-36; Assistant Head Nurse, Duke Hospital, 1936-40; Head Nurse, Medical and Surgical Ward, 1940—.

JULIA JANE BRADSHAW, R.N. Head Nurse on Private Surgical Ward

North Carolina College for Women, Greensboro, N. C., 1919-20; Diploma, Duke University School of Nursing, 1934; Assistant Head Nurse, Medical Ward, 1934-36; Head Nurse, Private Surgical Ward, 1936—.

GRACE SHIELDS, R.N.

Head Nurse on Private Surgical Ward

Diploma, Memorial Hospital, Danville, Va., 1930; Private Duty, 1930-31; General Duty, Duke Hospital, 1931-35; Assistant Head Nurse on Private Surgical Ward, 1935-40; Head Nurse on Private Surgical Ward, 1940—.

MARY LILLIE COTHRAN, R.N., B.S.

Head Nurse on Women's Surgical Ward

Winthrop College, Rock Hill, S. C., 1934-36; Diploma, Duke University School of Nursing, 1939; B.S. in Nursing, Duke University, 1939; Assistant Head Nurse, Duke Hospital, 1939; Head Nurse on Women's Surgical Ward, 1940—.

ROSABELLE WEHUNT, R.N.

Head Nurse on Women's Surgical Ward

Diploma, Duke University School of Nursing, 1936; General Duty, Duke Hospital, 1936-37; Head Nurse, Women's Surgical Ward, 1937-.

ALUCIA CROWELL, R.N., B.S.

Head Nurse on Men's Surgical Ward

Diploma, Duke University School of Nursing, 1939; B.S. in Nursing, Duke University, 1940; Assistant Head Nurse, Duke Hospital, January, 1940-September, 1940; Acting Assistant Night Supervisor, September, 1940-November, 1940; Head Nurse on Men's Surgical Ward, 1940—

ANNE C. SINGLETON, R.N.

Head Nurse on Obstetrical and Gynecological Ward

Diploma, University of Pennsylvania, Philadelphia, Pa., 1938; Assistant Head Nurse on Obstetrical and Gynecological Ward, 1939-40; Head Nurse on Obstetrical and Gynecological Ward, 1940—.

PAULINE A. MARTIN, R.N.

Head Nurse on Colored Obstetrical and Gynecological Ward

Diploma, Duke University School of Nursing, 1937; Head Nurse, Obstetrical and Gynecological Ward (White), 1937-39; Head Nurse, Obstetrical and Gynecological Ward (Colored), 1939—.

LOLA PAGE, R.N.

Head Nurse in Nursery

Diploma, Baptist Hospital, Winston-Salem, N. C., 1929; Postgraduate Work, Lying-In Hospital, New York, 1930; Private Duty, Raleigh, 1931-32; Assistant Head Nurse, Nursery in Duke Hospital, 1932-37; Head Nurse in Nursery, 1937—.

E. LOUISE PHILLIPS, R.N.

Head Nurse on Men's Surgical Ward

Diploma, Garfield Memorial Hospital, Washington, D. C., 1933; Postgraduate Course in Operating Room Technique, University of Virginia Hospital, University, Va., 1933; Head Nurse on Urological Ward, University of Virginia Hospital, 1933-40; Head Nurse on Men's Surgical Ward, Duke Hospital, 1940—.

MILDRED BEARSS, R.N.

Head Nurse on Children's Surgical Ward

Diploma, Johns Hopkins Hospital School of Nursing, 1932; Assistant Head Nurse, Duke Hospital, 1932-40; Head Nurse on Children's Ward, 1940-.

LECTURERS

LENOX DIAL BAKER, M.D
EDWIN PASCAL ALYEA, S.B., M.D
ANGUS McBryde, B.S., M.D
JAY MORRIS ARENA, B.S., M.D
JEROME SYLVAN HARRIS, A.B., M.D
Douglas Hamilton Sprunt, B.S., M.S., M.D
WILLIAM BANKS ANDERSON, A.B., M.DOphthalmology
WATT WEEMS EAGLE, A.B., M.D
NORMAN CONANT, B.S., A.M., Ph.D
Mabel Page Gordon, A.B
RICHARD LYMAN, B.A., M.D
ROBERT JAMES REEVES, A.B., M.D
Jasper Lamar Callaway, B.S., M.DDermatology and Syphilology
KARL ARDEN YOUNGSTROM, A.B., A.M., Ph.D
HARRELL HORACK, B.S., M.D
WILL C. SEALY, B.S., M.DSurgery
HENRY IRVING KOHN, A.B., Ph.D
HAROLD W. BROWN, A.B., M.S., Sc.D., Dr.P.H., M.DPublic Health
JOHN S. BRADWAY
ELMA O. PHILLIPSON. A.B., A.M

REGIONAL REPRESENTATIVES

Miss Clara Dennison, Director of School of Nursing, Strong Memorial Hospital, Rochester, N. Y.

Mrs. Cora Hodges, Superintendent of Nurses, Florida East Coast Hospital, St. Augustine, Fla.

Miss Margaret Anne March, 350 McDonald Avenue, Mobile, Ala.

Miss Sena Peterson, Superintendent of Nurses, Swedish Hospital, Minneapolis, Minn.

Miss Laura M. Grant, Associate Professor, Yale School of Nursing, New Haven Hospital, New Haven, Conn.

Mrs. Marcia Mayfield Mathews, Harris Apartments, Van Buren Avenue, Oxford, Miss.

Miss Ardena Reber, Instructor in Nursing Arts, Western Reserve School of Nursing, Cleveland, Ohio.

Mrs. Helen Lehman, Dean of Nursing, Baylor University, Waco, Texas.

Miss Ruth Ingram, Director, School of Nursing, Touro Infirmary, New Orleans, La.

Miss Arta Lewis, Director, School of Nursing, Mary Lanning Hospital, Hastings, Neb.

THE SCHOOL OF NURSING

GENERAL INFORMATION

The School of Nursing of Duke University was established in 1925 in connection with the School of Medicine of the University and Duke Hospital through the munificent gift of the late James B. Duke.

The plan of the School is to give a sound basic course in Nursing Education which will prepare young women to give intelligent nursing care to the sick in hospitals and homes of the community as well as an introduction to the problems of community health and preventive medicine.

The administration of the School is in the hands of the Curriculum Committee of the School of Nursing, under the general direction of the Executive Committee of the School of Medicine.

FACILITIES OF THE HOSPITAL

Duke Hospital has every modern convenience for the diagnosis, proper care, welfare, and comfort of the patients, both private and charity, white and colored, whether they come from Durham or from a distance. It has 604 beds, including 50 bassinets for newly-born infants. *Medicine*, including dermatology and neurology, has 75 ward beds; *surgery*, including urology, otolaryngology, ophthalmology, and orthopaedics, 143 ward beds; *obstetrics*, including *gynecology*, 56, and 50 bassinets; *neuropsychiatry*, 23; and *pediatrics*, 52. There are 205 private rooms and semiprivate cubicles, 7 operating rooms, and 4 obstetric delivery rooms. Offices and examining rooms for the members of the Medical Faculty are located in the Hospital. The Hospital has been approved for interneships and residencies by the Council on Medical Education and Hospitals of the American Medical Association.

Through the generosity of Dr. Robert S. Carroll, Highland Hospital, Asheville, North Carolina, has been presented to the University to form a therapeutic division of the Department of Psychiatry. Dr. Carroll will continue as Director of Highland Hospital. The School of Nursing at Highland Hospital offers training for those who wish to prepare themselves for psychiatric nursing. Those interested should apply to Dr. Robert S. Carroll, Highland Hospital, Asheville, North Carolina.

FACILITIES FOR INSTRUCTION

The facilities for instruction include the undergraduate colleges of the University, the School of Medicine, and the Duke Hospital.

LIBRARIES

The reference library of books and periodicals of special interest to students majoring in nursing is located in the Hospital Library. An auxiliary library, which is used chiefly by freshman students, is in the Nurses' Residence. The students may use the general libraries on both campuses.

RESIDENCE

The students are housed in the fireproof residence located near the Hospital. It is adequately equipped with blankets and linen, making further provision by the student unnecessary.

HEALTH REGULATIONS AND PHYSICAL EDUCATION

The School has general supervision of the student's health. All physical defects, such as defective vision, dental needs, etc., must be corrected before admission to the School. The student must have been immunized against typhoid fever, and vaccinated against smallpox during the current year. All students are required to pass a physical examination before admission to the School of Nursing and at intervals thereafter, a final examination being given at the end of the course. Exercises for two periods a week during the first two quarters are required of all students.

ACTIVITIES OFFERED

Autumn Quarter (October to December): Hockey, swimming, tennis, moderate sports, and hiking.

Winter Quarter (January to March): Informal gymnastics, Danish gymnastics, apparatus, games, individual gymnastics, folk dances, clogging, interpretative dancing, swimming, and basketball.

Spring Quarter (March to June): Tennis, swimming, baseball, track, field events, and archery.

ADMISSION REQUIREMENTS

Application forms may be obtained by writing to the Dean, Duke University School of Nursing, Durham, North Carolina. They must be typed, a 2 x 2½ inch recent photograph attached, and the application returned to the Dean as soon as possible. Applications are considered in the order received. If the information is satisfactory, a personal interview with the Committee or a Regional Representative will be arranged for the applicant. The candidate is notified as soon as possible whether she has been accepted or declined; if accepted, the student must send in a deposit of twenty-five dollars (\$25) within two weeks to insure enrollment. This money is applied toward her tuition. Students are admitted only at the beginning of the Autumn Quarter, but applications are considered, and a decision with regard to Admission is made after January 1 of that year. Students are matriculated in the School of Nursing on September 30, 1941. The applicant must be eighteen years of age.

The requirements for admission for 1941 are as follows: The completion of four years of acceptable high-school work, which must include one year of chemistry and one year of another science, preferably biology. Preference will be given to applicants who have completed one or

more years of work in an accredited college.

SCHOLARSHIPS

A yearly tuition fee of \$100.00 is required, first year \$25.00 upon acceptance by the School, \$25.00 upon registration, and \$50.00 on Janu-

ary 1. The second and third years, \$50.00 on October 1 and \$50.00 on January 1. There will be a refund of \$25.00 to students who leave the School within one month of registration. The tuition includes room, board, laundry, uniforms, and all of the textbooks. Estimated additional expenses for the first year are \$10.00, for the second \$5.00, and for the third year \$5.00.

The School of Nursing does not offer the Bachelor of Science degree, but three scholarships of \$500 each will be awarded to finishing students showing marked ability, to enable them to continue their work in

Nursing Education.

READMISSION

Students who are absent for more than one month through illness or leave of absence may be readmitted to the same or a succeeding class at the discretion of the Committee.

VACATIONS

Each year is divided into four quarters of three months each. The first-year students have vacations of two weeks at Christmas and two weeks during the summer. Junior and Senior students have vacations of one month each.

COURSES OF INSTRUCTION

Anatomy and Physiology.—Lectures, laboratory work, demonstrations.
DR. YOUNGSTROM, DR. KOHN, MISS RANDOLPH

Chemistry.—Lectures are supplemented by typical laboratory experiments and discussion of general, organic, and physiological chemistry.

Dr. Taylor, Miss Randolph

Bacteriology.—The relation of pathogenic organisms to the cause, prevention, spread, and control of communicable diseases; lectures and laboratory work.

DR. CONANT, MISS RANDOLPH

Elementary Materia Medica and Pharmacology.

MISS RANDOLPH

Advanced Materia Medica.

MISS RANDOLPH

Elementary Psychology.—Fundamental principles underlying human conduct.

Dr. Lundholm

Applied Psychology.

MISS SCHMITT

Professional Adjustments I.

MISS PINKERTON

Professional Adjustments II.

MISS RANDOLPH, MR. J. BRADWAY

History of Nursing.—The course consists of lectures, recitations, lanternslides, and collateral reading.

Miss Randolph

Nursing Arts I.—Introduction to nursing, ethics, and hospital economics.

Miss Burnham

Nursing Arts II.—Principles of elementary nursing procedures, including bandaging.

Miss Burnham

Nursing Arts III.—Demonstrations and practice in the classroom and supervised experience on the wards.

MISS BURNHAM, AND SUPERVISORS

Nursing Care Plan.—The relation of the patient to his social background.

MISS VAN BLARCOM

Senior Demonstration.—A review of nursing procedures.

MISS BURNHAM, AND SUPERVISORS

Nutrition, Foods, and Cookery.

MRS. MARTIN

Dietetic Therapy.

MRS. MARTIN

Sociology.

MISS RANDOLPH

Social Service.

MISS RANDOLPH, MISS PHILLIPSON

Introduction to Community Health.—The fundamental laws of health with relation to the teaching function of the nurse.

MISS RANDOLPH

Preventive Medicine and Public Health.—Public Health Nursing in its relation to the modern health program.

DR. BROWN, AND ASSISTANTS

Medical Diseases and Medical Nursing.

Dr. Horack, Miss Van Blarcom

Dermatology.

DR. CALLAWAY, MISS VAN BLARCOM

Neurology and Psychiatry.	Dr. Lyman, Miss Schmitt
General Surgical Diseases and Surgical	Dr. SEALY, MISS THOMAS
Operating Room Technique.	Miss Batchelder
Orthopedics. Dr. Raney	, Dr. Lenox Baker, Miss Thomas
Urology.	Dr. Alyea, Miss Thomas
Otology, Rhinology, and Laryngology.	Dr. Eagle, Miss Randolph
Ophthalmology.	Dr. Anderson, Miss Randolph
Gynecology and Gynecological Nursing	g. Dr. Carter, Miss Wenrich
Obstetrics and Obstetrical Nursing.	Dr. Carter, Miss Wenrich
Pediatrics and Pediatric Nursing. DR. MC	Bryde, Dr. Arena, Miss Sherwood
Communicable Diseases.	Dr. Harris, Miss Van Blarcom
X ray.	Dr. Reeves, Miss Van Blarcom
Dental Hygiene.	Dr. Atwood, Miss Van Blarcom
Allergy. Dr. H	Hansen-Prüss, Miss Van Blarcom
Physical Therapy.	Miss Gordon

Posture.—Faulty posture, deviation of the spine, weak feet, corrective gymnastics.

Miss Gordon

CURRICULUM

F1RST YEAR

Autumn Quarter	r		Winter Quarter	
	Hours		Hours	
Lect.,			Lect.,	
Class	Lab.	Total	Class Lab. Total	ì
Anatomy and			Nursing Arts II 44 55 99)
Physiology 49	52		Bacteriology 22 22 44	ļ
Chemistry 33	22	55		
History of Nursing. 33		33	Medica 22 11 33	3
Elem. Psych 22		22	Nutrition, Foods,	
Introd. to Commun.		22	and Cookery 22 22 44	ł
Health 22	22	22 44	110 110 220	-
Nursing Arts I 22	22 8	11	Ward Practice 18 hours weekly	
Posture	0	11	Ward Practice 18 hours weekly	ř
1101. Auj. 1 11		- 11		
195	104	299		

Physical Education 2 hours a week the first and second quarter.

Spring Quarter	Summer Quarter Vacation 2 weeks Ward Practice 8 hours daily
SECONI) YEAR
Autumn Quarter Hours Lect., Class Total Pathology 15 15 Medicine 33 33 Surgery 33 33 Oper. Rm. Tech. 11 11 Orthopedics 22 22 115 115	Winter Quarter
Spring Quarter Hours Lect., Class Total Applied Psych. 22 22 Ear, Nose, & Throat 22 22 Sociology 33 33 77 77	Summer Quarter Vacation 4 weeks Ward Practice 8 hours daily
THIRD	YEAR
Autumn Quarter Hours Lect., Class Obstetrics	Winter Quarter
Spring Quarter Hours Lect., Class Prof. Adj. II 22 Preventive Med. & Public Health 22 Social Service 22 Ward Management 11 77	Summer Quarter Vacation 4 weeks Ward Practice 8 hours daily

Clinical Experience After the First Six Months

Medical Wards	5½ months
Surgical Wards	
Diet Kitchen	
Gynecological Wards	
Operating Department	2 months
Out-Patient Department	1 month
Private Wards	
Obstetrical Department	
Pediatrics Department	3 months
Milk Laboratory	1/4 month
Psychiatry	
Electives	
Unassigned	1 month

SENIOR STUDENTS

Babb, Frances, Greenville Woman's College, Furman University, Princeton, S. C.

Bigler, Ouida, Grove City College, Pa., A.B., 1938, Albemarle, N. C. Brooke, Inez, Averette College, Poindexter, Va. Bryant, Edith, Elon College, Elon College, N. C.

Bunch, Mary, Woman's College of University of North Carolina, Asheboro,

Collins, 'Hallie Jo, Duke University, Coral Gables, Fla.

Darrough, Sara, Mars Hill College, Asheville, N. C. Deaton, Dorothy, Flora McDonald College, Eagle Springs, N. C. Dugger, Carlotta, Fairfax Hall Junior College, Waynesboro, Va. Dulin, Margaret, Bowling Green, S. C. Hartley, Lucy Dare, Lees-McRae College, Blowing Rock, N. C. Horton, Theresa, Catawba College, Salisbury, N. C. Kale Ella Mae, Asharilla N. C.

Kale, Ella Mae, Asheville, N. C.

Ledford, Rubye, Appalachian State Teachers College, Union Mills, S. C.

McCranie, Aline, South Georgia College, Douglas, Ga.

Mallory, Margaret, Charleston, W. Va. Martin, Edrie, *Greensboro College*, Hillsboro, N. C.

Matheson, Deane, Woman's College of University of North Carolina, Raeford, N. C.

Miller, Frances, State Teachers College, Boone, N. C. Milton, Margaret, Middle Georgia College, Adel, Ga. O'Neal, Christine, Winthrop College, Fairfax, S. C. Reinhardt, Cynthia, Meredith College, Lincolnton, N. C. Sowers, Lucy, State Teachers, Harrison, Va., Floyd, Va.

Steigleman, Betty, Harrisburg, Pa. Wade, Sarah, Eastern Carolina Teachers College, Morehead City, N. C.

Warren, Sue, Limestone College, Durham, N. C. Whitener, Marion, Limestone College, Shelby, N. C. Young, Helen Rose, Campbell College, Princeton, N. C.

JUNIOR STUDENTS

Alley, Charlotte, Appalachian State Teachers College, Hickory, N. C. Allred, Mary, Florida State College for Women, Bowling Green, Fla.
Ayers, Mary Elizabeth, Presbyterian College, Clinton, S. C.
Bunn, Esper Nan, Eastern Carolina Teachers College; Atlantic Christian,
Spring Hope, N. C.
Combs, Thelma Jeanne, Belhaven, N. C.

Cook, Clara Bert, Farmville State Teachers, Franklin, Va. Cowan, Frances, Limestone College, Westminster, S. C. Curtis, Catherine, Millsaps College, Clarksdale, Miss. Ellison, Ethel Merle, University of South Carolina, Columbia, S. C. Estes, Jeane, Alabama College, Jasper, Ala. Gaines, Dorothy Ann, Charlotte, N. C. Garris, Evelyn Grace, Raleigh, N. C. Geckler, Ruth, Ohio State University, Waynesburg, Ohio. Gum, Margaret, Durbin, W. Va. Harvin, Harriet Ann, Anderson Junior College, Anderson, S. C. Jones, Helen Alison, Bergenfield, N. J. Kirkland, Sara, Woman's College of University of North Carolina, Durham, N. C. Krebs, Gladys Luella, Hanover, Pa. Leatherwood, Elizabeth, Duke University, Bryson City, N. C. Letherman, Alice, Mereer University, Macon, Ga. Ligon, Martha, Madison College, Clarksville, Va. Lingle, Dorothy Lee, Charlotte, N. C. McCollum, Sara, Bradenton, Fla. McCorkell, Jean Elizabeth, Farmville State Teachers, Paulsboro, N. J. Maxwell, LaVohn, Jacksonville, Fla. Misenheimer, Rachel, Brevard College, Taylors, S. C. Moore, Louise Harris, Queens-Chicora College, Lake City, S. C. Moore, Mary Alice, Madison College, Clarksville, Va. Mortimer, Anne, Ashland, Ky. Poindexter, Kathaleen, Appalachian State Teachers College, Cana, N. C. Poole, Carol, Woman's College, Furman University, Greenville, S. C. Rutledge, Fannie, Mitchell College, Leaksville, N. C. Sheldon, Dorothy, Winthrop College, Fair Play, N. C. Slade, Lucy Tabor, Appalachian State Teachers College, Blanch, N. C. Smythe, Florrie, University of Alabama, Fort Mill, S. C. Stone, June, Bassett, Va. Weintz, Edith, *Duke University*, Austinville, Va. Whipple, Isabelle, Jacksonville, Fla. Wirt, Emma, Florida State College for Women, Babson Park, Fla. Wynne, Wilda, Mars Hill College, Erwin, Tenn.

Adams, Katie, Madison College, Gretna, Va.
Bain, Barbara, Washington University, La Grange, Ga.
Baker, Betty Belle, West Virginia University, Morgantown, W. Va.
Barickman, Martha, Marshall College, S. Charleston, W. Va.
Beaton, Frances, Hofstra College, Jackson Heights, N. Y.
Bickner, Dorothy, St. Petersburg Junior College, Tampa, Fla.
Bowles, Josephine, Madison College, Harrisonburg, Va.
Boykin, Elizabeth, Flora MeDonald College, Bluefield, W. Va.
Carter, Myrtle, Woman's College, University of North Carolina, Gatesville, N. C.
Chisholm, Carol, Brevard College, Crossnore, N. C.
Coggins, La Una, Coker College, Inman, S. C.
Covington, Mildred, Madison College, Lynchburg, Va.
Craddock, Alice, Mars Hill College, Cary, N. C.
Cutlip, Eleanor Lee, Marshall College, Richwood, W. Va.
Decker, Kathryn, Cornell College, Chicago, Ill.
Fagg, Mary P., Madison College, Elliston, Va.
Farquhar, Mary, California State Teachers College, California, Pa.
Farrar, Mary Frances, Greensboro College, Durham, N. C.
Fox, Irene C., Duke University, East Moriches, N. Y.
Gambrell, Vivian E., Catawba College, Lexington, N. C.

Green, Mary, Winthrop College, Lake City, S. C.

Green, Mary, Winthrop College, Lake City, S. C.
Greene, Dorothy, Brevard College, Charlotte, N. C.
Greenlee, Helen, Western Carolina Teachers College, Spruce Pine, N. C.
Hallum, Fleda, Winthrop College, Pickens, S. C.
Harrison, Ethel F., New Jersey State Teachers College, New York, N. Y.
Hartley, Jean, Appalachian State Teachers College, Blowing Rock, N. C.
Johnston, Deloris, University of Tennessee, Bellmore, N. Y.
Keesee, Ellen, Averett and Madison College, Java, Va.
Kelly, Margaret, West Virginia University, Terre Alta, W. Va.
Kniseley, Marjorie, Kent State University, Salem, Ohio.
Lewis, Janice, Campbell College, Zebulon, N. C.
Lodge, Elizabeth, Dickinson College; Temple University, Reading, Pa.
Lyon, Frances, Salem College, Winston-Salem, N. C.

Lodge, Elizabeth, Dickinson College; Temple University Lyon, Frances, Salem College, Winston-Salem, N. C. Massenburg, Helen, Goucher College, Macon, Ga.

Massenburg, Helen, Goucher Coucge, Macon, Ga.
Meeks, Marian, North Georgia College, Nicholls, Ga.
Melton, Iris, Mars Hill College, Hendersonville, N. C.
Newman, Ruby, Pineland Junior College, Clinton, N. C.
Parker, Mary Virginia, Farmville State Teachers College, Homeville, Va.
Peppler, Dorothy, McCook Junior College, McCook, Neb.
Pipkin, Celia Zoe, Florida State College for Women, Bartow, Fla.
Courtlebourg, Louise University of South Capaling, Columbia, S. C.

Quattlebaum, Louise, University of South Carolina, Columbia, S. C. Reinhardt, Elizabeth, Woman's College, University of North Carolina, Stanley,

N. C.

Rose, Ernestine, Louisburg College, Nashville, N. C. Santos, Elvin, William & Mary Extension, Norfolk, Va.

Sewell, Genevieve, Meredith College, Seffner, Fla.

Sink, Charlene H., Appalachian State Teachers College, Winston-Salem, N. C.

Smith, Jean Preston, Madison College, Waynesboro, Va. Stahl, Barbara B., Huntington College, Oxford, N. C.

Wall, Jessie M., Woman's College, University of North Carolina, Randleman,

Wells, Lela P., Winthrop College, Greenwood, S. C.

White, Mary Jane, Rice Institute, Houston, Tex. Whiteside, Kathleen, Limestone College, Blacksburg, S. C.

Wright, Marybelle, Florida State College for Women, Jacksonville, Fla.

Wright, Ruby R., Madison College, Roanoke, Va.

Yount, Kathryn, Lenoir Rhyne College, Faith, N. C.

AFFILIATE STUDENTS

Blackwelder, Ida Mae, Salisbury, N. C.
Carter, Margaret Virginia, Apopka, Fla.
Foy, Lola Bayte, Gastonia, N. C.
Hannah, Marjorie, Sardis, Ga.
Hardy, Dorothy Ruth, Mt. Pleasant, Tenn.
Hopkins, Christa Lee, Academy of Central College, Asheville, N. C.
Johnston, Anna Masylove, Moxton, N. C.
Lones, Mary Loy, Unadilla, Ga.

Jones, Mary Lou, Unadilla, Ga. Lagle, Mabel Isabella, Mocksville, N. C. May, Lenoir Vivian, Gastonia, N. C.

Morelock, Lora Eloise, Fall Branch, Tenn. Nolen, Maeola, Chesnee, S. C.

Ouzts, Annie Louise, Johnston, S. C. Sutton, Sarah Arlene, Newton Grove, N. C

Whisnant, Helen Kathryn, Morganton, N. C. Young, Elma Althea, Stephens, Ga.

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DUKE UNIVERSITY SCHOOL OF NURSING GRADUATES

Adams, Dorothy Ellen. Diploma, 1939; B.S., 1939. Western Reserve University, Cleveland, Ohio.

Adams, Maude (Mrs. Percy White). Diploma, 1938; B.S., 1939. Lynnhaven,

Alexander, Ruth Brinkley. Diploma, 1939; B.S., 1940. Private Duty, Durham, N. C.

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Arnold, Aldine. Diploma, 1933.

Atkinson, Pauline (Mrs. J. A. Martin). Diploma, 1937. Head Nurse, Duke Hospitai.

Atzrodt, Rebecca Anne (Mrs. Warner Wells). Diploma, 1937; B.S., 1939. Clinic Nurse, Duke Hospital.

Bagby, Virginia. Diploma, 1940; B.S., 1940. Duke Hospital. Barbee, Sula (Mrs. George R. Parks). Diploma, 1938; B.S., 1940. 1104 Ninth Street, Durham, N. C.

Barton, Ruth Lorelle. Diploma, 1939; B.S., 1939. Assistant Practical Nursing Instructor, Duke Hospital.
Bell, Joyce (Mrs. Guy Hager). Diploma, 1937. 821 Pearl Street, Sharon, Pa.

Den, Joyce (Mrs. Guy Hager). Diploma, 1937. 821 Pearl Street, Sharon, Pa. Berry, Anne. Diploma, 1938. General Duty, Duke Hospital.
Bisanar, Lelia Elizabeth. Diploma, 1939. General Duty, Duke Hospital.
Black, Frances (Mrs. Walter Hastings). Diploma, 1937. Charlotte, N. C.
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Bradshaw, Julia. Diploma, 1934. Head Nurse, Duke Hospital. 820 Wilkerson Ave., Durham, N. C.
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Brewer, Lottie May. Diploma, 1934; B.S., 1939. Public Health.
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Caldwell, Faire. Diploma, 1934. Private Duty, 2001 Selwyn Ave., Charlotte,

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Cates, Ona Maude. Diploma, 1936. Private Duty.
Chittendon, Eleanor (Mrs. E. E. Menefee). Diploma, 1935. Durham, N. C.
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Clay, Isa Telford. Diploma, 1940; B.S., 1940. General Duty, Duke Hospital.
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Ware, Frances. Diploma, 1934; B.S., 1939. Public Health Nurse, Halifax County Health Dept., Weldon, N. C. Weaver, Martha. Diploma, 1940. General Duty, Duke Hospital.
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Wehunt, Rosabelle. Diploma, 1936. Head Nurse, Duke Hospital.
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Zirkle, Margaret Collier. Diploma, 1936. General Duty, Tucker's Sanatorium,

Richmond, Va.

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West Virginia 1
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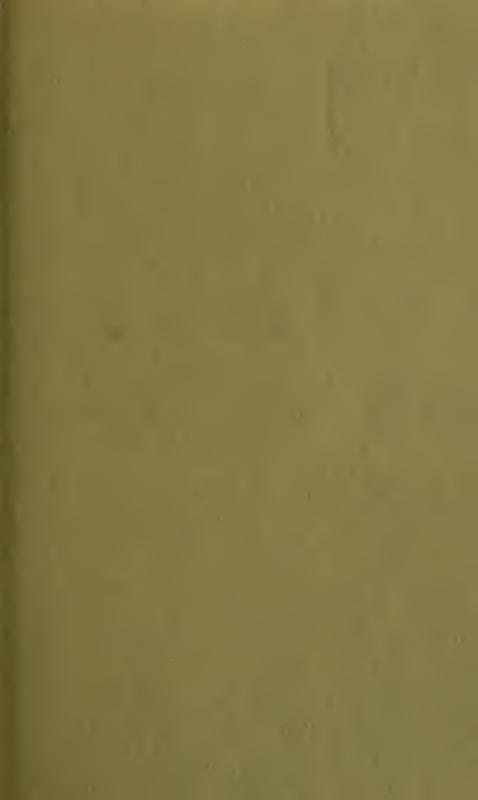
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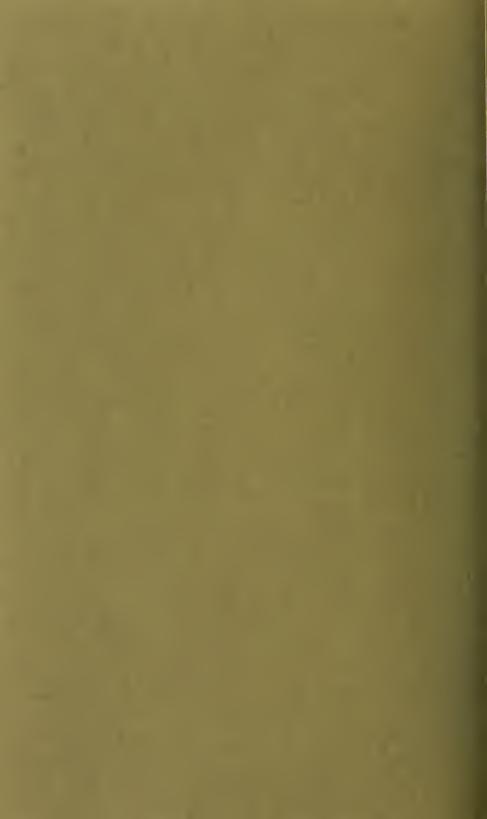
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February, 1941

VOLUME 13

NUMBER 3-A

BULLETIN OF DUKE UNIVERSITY

College of Engineering



1940-1941 ANNOUNCEMENTS FOR 1941-1942

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For Bulletin of The College of Engineering, apply to *The Secretary*, Duke University, Durham, N. C.

For Bulletin of The Summer School, apply to The Director of the Summer School, Duke University, Durham, N. C.

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OF

DUKE UNIVERSITY



COLLEGE OF ENGINEERING

1940-1941 ANNOUNCEMENTS FOR 1941-1942

DURHAM, NORTH CAROLINA
1941



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UNIVERSITY CALENDAR

1941

- June 10. Tuesday, 9:00 A.M.—Registration of students for Summer School, first term.
- June 11. Wednesday, 2:00 P.M.—Instruction begins for Summer School, first term,
- July 4. Friday, Independence Day: a holiday.
- July 19-21. Saturday, Monday—Final examinations for Summer School, first term.
- July 22. Tuesday, 9:00 A.M.—Registration of students for Summer School, second term.
- July 23. Wednesday, 2:00 P.M.—Instruction begins for Summer School, second term.
- Aug. 29-30. Friday, Saturday—Final examinations for Summer School, second term.
- Sept. 11. Thursday, 9:00 A.M.—Dormitories open to Freshmen.
- Sept. 11. Thursday, 8:00 p.m.—Assembly for all entering Freshmen; Freshman Orientation Program begins.
- Sept. 16. Tuesday—Freshman instruction begins.
- Sept. 16. Tuesday—Registration and matriculation of new students with advanced standing.
- Sept. 17. Wednesday, 11:00 A.M.—Formal opening of the College; registration of matriculated students.
- Sept. 18. Thursday—Instruction for Sophomores, Juniors, and Seniors begins.
- Sept. 18-20. Thursday, 9:00 a.m.-1:00 p.m.; 2:30 p.m.-4:00 p.m.; Friday, 9:00 a.m.-1:00 p.m.; 2:30 p.m.-5:00 p.m.; Saturday, 9:00 a.m.-1:00 p.m.—Registration of graduate students.
- Nov. 20. Thursday--Thanksgiving Day: a holiday.
- Dec. 11. Thursday—Duke University Day.
- Dec. 20. Saturday, 1:00 P.M.—Christmas recess begins.

1942

- Jan. 5. Monday, 8:00 A.M.—Instruction is resumed.
- Jan. 17. Saturday—Mid-year examinations begin.
- Jan. 31. Saturday—Last day for matriculation for second semester.
- Feb. 2. Monday—Second semester begins.
- March 21. Saturday, 1:00 P.M.—Spring vacation begins.
- March 30. Monday, 8:00 A.M.—Instruction is resumed.

- April 18. Saturday—Last day for submitting orations for Wiley Gray Contest.
- April 30. Thursday—Last day for selection of courses for ensuing year.
- May 9. Saturday—Earliest date for beginning of Honors examination.
- May 22. Friday—Final examinations begin.
- June 6. Saturday—Commencement opens; Senior Class Day; meeting of the Board of Trustees.
- June 7. Sunday—President's Address to Graduating Class; Commencement Sermon.
- June 8. Monday—Commencement Address; Alumni-Alumnae Luncheon; Graduating Exercises; Lowering of the Flag by the Graduating Class.

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1005 Urban Avenue

RALPH SYDNEY WILBUR, B.S. in M.E., M.E.

Professor of Mechanical Engineering, Chairman of Department of Mechanical Engineering

1317 Arnette Avenue

ROBERT G. CHAPMAN, B.S. in M.E., M.M.E. Instructor in Mechanical Engineering

1007 Lakewood Avenue

^{*} Deceased. ** Elected January 29, 1941.

113 Watts Street

916 Monmouth Avenue

11 Powe Apartments

147 Pinecrest Road

Nation Avenue

EDWARD K. KRAYBILL, B.S. in E.E.

Instructor in Electrical Engineering

MARCUS EDWIN HOBBS, A.B., A.M., Ph.D.

JAMES MAYNARD KEECH, A.B., A.M., Ph.D.

Archibald Currie Jordan, A.B., A.M. Assistant Professor of English

Instructor in Chemistry

Instructor in Economics

Otto Meier, Jr., B.S. in E.E., M.S., E.E.

Assistant Professor of Electrical Engineering

Frederick Jerome Reed, M.E., M.S. Assistant Professor of Mechanical Engineering 2203 Englewood Avenue MORTON A. SERRELL, M.E. 206 Swift Avenue Instructor in Mechanical Engineering ERNEST S. THEISS, B.S. in M.E., M.S. Instructor in Mechanical Engineering Southgate Dormitory CHARLES ROWE VAIL, B.S. in E.E. Instructor in Electrical Engineering 1007 West Trinity Avenue JOHN DARGAN WATSON, A.B., B.S. in C.E., M.S., Sc.D. Assistant Professor of Civil Engineering 913 Duke Street JAMES WESLEY WILLIAMS, A.B., B.S. in C.E. 206 Swift Avenue Instructor in Civil Engineering THOMAS S. BERRY, S.B., M.A., Ph.D. Instructor in Economics 100 Vineyard Street LYMAN GAYLORD BONNER, A.B., Ph.D. Instructor in Physics Nation Avenue DAVID WILLIAMS CARPENTER, A.B., A.M., Ph.D. Assistant Professor of Physics 137 Pinecrest Road Francis George Dressel, B.S., M.S., Ph.D. Instructor in Mathematics Route 1, Box 106, Durham WILLIAM STONE FITZGERALD, A.B., A.M. 3 Powe Apartments, 603 Watts Street Instructor in English JOHN JAY GERGEN, A.B., M.A., Ph.D. Professor of Mathematics 1005 Monmouth Avenue Joseph Greenwood, A.B., A.M., Ph.D. Assistant Professor of Mathematics 1314 Norton Street George Harwell, A.B., A.M., Ph.D. Instructor in English 8 Aycock Apartments RALPH MURRAY HAVENS, A.B., M.B.A. Instructor in Accounting 1106 Arnette Avenue MALCOLM HAYDEN HEBB, A.B., Ph.D. Instructor in Physics 132 Pinecrest Road ARTHUR OWEN HICKSON, A.B., A.M., Ph.D. Assistant Professor of Mathematics 208 Legion Avenue, Tuscaloosa Forest Douglass Hill, A.B., M.A., Ph.D. Assistant Professor of Chemistry Dixon Road

WILLARD EDGAR MARTIN, JR., A.B., A.M., Ph.D. Instructor in English

JAMES CARLISLE MOUZON, B.A., Ph.D. Assistant Professor of Physics

KARL BACHMAN PATTERSON, A.B., A.M. Assistant Professor of Mathematics

LEWIS PATTON, A.B., Ph.D.

Associate Professor of English

WILLIAM WALTER RANKIN, JR., B.E., M.A. Professor of Mathematics

JOHN H. ROBERTS, A.B., Ph.D.

Associate Professor of Mathematics

307 Legion Avenue, Tuscaloosa Forest

JOSEPH JOHN SPENGLER, A.B., M.A., Ph.D. Professor of Economics

ROBERT NORTH WILSON, A.B., M.S.

Professor of Chemistry

Assisted by members of General Faculty listed in General Bulletin.

812 Wilkerson Avenue

132 Pinecrest Road

102 I mecrest Road

1024 Monmouth Avenue

1511 West Pettigrew Street

1011 Gloria Avenue

Cranford Road

822 Third Street

COUNCIL ON ENGINEERING INSTRUCTION

President R. L. FLOWERS Vice-President W. H. WANNAMAKER Dean W. H. HALL H. C. Bird, Civil Engineering W. J. SEELEY, Electrical Engineering R. S. WILBUR, Mechanical Engineering J. C. Mouzon, Physics M. E. Hobbs, Chemistry J. J. Spengler, Economics A. C. Jordan, English John Jay Gergen, Mathematics W. A. Tyree, Secretary

ENGINEERING COURSES OFFERED

GENERAL STATEMENT

Duke University, through the College of Engineering, offers standard four-year courses in civil, electrical, and mechanical engineering. These departments are housed respectively in Bivins, Asbury, and Branson buildings. The James H. Southgate Memorial Building, set aside for the housing of engineering students, contains social rooms, recitation rooms, gymnasium, dining rooms, and kitchen, as well as dormitory facilities. Meals are provided in this building at the same rate which prevails in the other University dining halls.

Curricula: The courses of study in the several branches of engineering are set up to conform as closely as possible to the findings of the Society for the Promotion of Engineering Education. Fundamental training is given in English, mathematics, and the sciences, as well as in the technical subjects leading to professional work in civil, electrical, and mechanical engineering. Election of courses in the Department of Economics and Business Administration is encouraged in the belief that the combining of such courses with the rigorous engineering program affords excellent preparation for the types of commercial or industrial activities in which engineering training is most valuable.

FACULTY: The members of the Instructional Staff have been chosen particularly for their ability to teach. Instruction is given in small sections, insuring personal attention. The laboratory is used to supplement the classroom, and at present the same instructor carries his class through both the classroom and laboratory work. This is made possible only where classes are limited in size.

Student Activities: Three national engineering societies, the American Society of Civil Engineers, the American Society of Mechanical Engineers, and the American Institute of Electrical Engineers, are represented by student chapters operating under national charters. An honorary engineering fraternity, Delta Epsilon Sigma, was organized several years ago for the purpose of stimulating good scholarship among the engineering students. All four of these organizations afford unusual opportunities for the members to present papers and to conduct discussions in certain phases of engineering not covered in the classroom. Engineering students are in every sense a part of the student body of Duke University, enjoying the general advantages of the University and being subject to the general rules and regulations.

HISTORY: The teaching of engineering is not new at Duke University. From 1887 to 1893 formal courses in civil and mining engineering leading to the Bachelor of Science degree were offered by Trinity College. After their discontinuance in 1893, the teaching of engineering subjects was begun again in 1903 and has continued uninterruptedly since that

time. At present there are three departments offering courses in civil, electrical, and mechanical engineering leading to the degree Bachelor of Science in these branches of engineering. These three departments constitute the College of Engineering.

CIVIL ENGINEERING

The civil engineer's field of work may be divided into four major divisions: sanitary—dealing with water works, sewerage systems, and garbage disposal; hydraulic—interested in flood control, river improvement, irrigation, drainage, and water power; transportation—concerned with railroads, airports, highways, waterways, park systems, traffic control, and city planning; and structural—dealing with bridges, buildings, foundations, dams, tunnels, tanks, bins, and various industrial structures. His function is chiefly one of design and construction, although often it includes maintenance. In order to train a student in these various lines of effort, the following equipment is provided.

HIGHWAY MATERIALS: Complete equipment is available for the preparation and routine testing of aggregates, cement, and bituminous materials. There is also a Hubbard stability machine for additional tests.

Sanitary Engineering: In the sanitary laboratory there is a complete equipment for performing the physical, chemical, bacteriological, and microscopic tests as outlined by the American Public Health Association. Different types of water current meters are available for work in steam gaging.

Soils Testing: This laboratory is fully equipped to carry out the ex-

periments generally used in testing soil for highway purposes.

CEMENT TESTING: There is available complete equipment for the testing of cement and aggregates, such as an automatic shot testing machine, flow table, Ro-Tap sieve shaker, a two-hundred-thousand-pound hydraulic compression machine, and other necessary supplies.

SURVEYING: For use in the courses in surveying there are thirteen transits, twenty-one levels, a precise theodolite and a precise level, three plane table outfits, solar attachments, sextants, compasses, barometers, and other light equipment.

STRESS ANALYSIS: Advanced work in stresses is carried on by means of a large-sized Begg's deformeter and photoelastic equipment.

General Engineering Materials: This laboratory housed in the Civil Engineering Building, contains the equipment necessary to give undergraduate and graduate instruction in the determination of the physical properties of materials. In the laboratory are two universal testing machines, torsion, fatigue, and impact machines, a proving ring, several hardness testers, and an exceptionally complete set of accessories and small instruments for the determination of the stress-deformation characteristics of steel, wood, and concrete.

ELECTRICAL ENGINEERING

The field of electrical engineering covers the generation of electrical energy, both by water power and steam power, its transmission, distribu-

tion, and utilization; communication, both by wire and by radio, and the allied art of television; transportation, by locomotive, bus, and water; and illumination.

THE MACHINERY LABORATORY receives its electric power from the Duke Power Company over a 2300-volt, 60-cycle, three-phase line. The equipment includes an A. C. to D. C. motor-generator set for supplying the laboratory with direct current, four direct connected D. C. to D. C. motor-generator sets, two D. C. to A. C. belted sets, a G. E. sine wave motor-generator set, a Westinghouse phase displacement dynamometer, a General Electric type A. C.-D. C. synchronous converter, for one-, two-, three-, or six-phase operation, a self-starting, single-phase battery-charging converter, numerous single-phase constant potential transformers, a three-phase transformer, a constant current transformer equipped with a typical load of series street lamps, three-phase induction regulators, numerous loading devices both electrical and mechanical, and a number of miscellaneous D. C. and A. C. motors and generators. Complete equipment for testing fractional horsepower motors, together with eighteen typical motors, was recently added to this laboratory. In addition, the equipment includes a complete line of measuring instruments for both general testing purposes and precision measurements, and three oscillographs for viewing and photographing wave forms.

THE COMMUNICATIONS LABORATORY is exceptionally well equipped and contains complete apparatus for carrying out all kinds of communication experiments at both audio and radio frequencies. The audiofrequency equipment includes a 200-mile open-wire artificial telephone line, a vacuum tube amplifier-milliammeter-voltmeter, 6-A transmission measuring set, vacuum tube oscillators calibrated for frequencies ranging from 25 to 100,000 cycles per second, a 1,000-cycle motor-generator, a direct reading frequency meter reading from 20 to 20,000 cycles per second; impedance bridges for both audio and intermediate frequencies; standards of resistance, inductance, and capacitance; filters of various kinds; a high quality amplifier, power amplifiers, loud speakers, noise meter, and other instruments for general test purposes. A complete Automatic Electric Company telephone exchange is included in this laboratory. The radio-frequency equipment consists of short wave and broadcast receivers, precision wave meter, automatic field strength recorder, field intensity meter, standard signal generator, thermo-couples for current and voltage determinations, condensers, inductors, and meters.

The Electronics Laboratory, adjoining the Communications Laboratory, is completely equipped for studies of vacuum tubes and vacuum tube circuits: power supply units, special high resistance meters, oscillators, vacuum tube voltmeters, thermo-couples, etc.

THE STANDARDIZING LABORATORY is equipped with standard instruments for the purpose of checking and calibrating meters used in any of the other laboratories.

THE PROJECTS LABORATORY is set aside for the use of students who are working on special projects requiring set-ups which cannot be disturbed

by regular laboratory experiments. This laboratory is made available to Seniors who elect projects course 265-266.

THE ELECTRICAL CIRCUITS LABORATORY is equipped with all necessary apparatus and instruments for carrying out experiments on direct current and alternating current circuits, such as studies of various types of meters, resistance and conductivity measurement, storage batteries, magnetic measurements, series and parallel circuits, power factor, etc.

The Amateur Radio Station, W4AHY, is equipped with a 75-watt crystal-controlled C. W. transmitter, a Collins 30FXB 100-watt phone transmitter, Hammarlund Pro receiver, National SW5 receiver, a pair of RCA tranceivers, and necessary testing and measuring equipment. The station is controlled and operated by the Engineers' Radio Association.

MECHANICAL ENGINEERING

Mechanical engineering as a profession is concerned with power and machines to generate power and to apply it to useful ends. A field so broad includes all lines of industry, but among the special fields in which mechanical engineers are engaged are combustion or power production engineering, machine and machine-tool design, railway motive power, automotive engineering, aviation engineering, refrigeration, air conditioning, and industrial management.

In order to lay a foundation for a successful career in mechanical engineering, it is necessary to provide a tie between theory and practice, to become familiar with engineering apparatus and instruments as well as their testing and calibration. Laboratory work is therefore necessary. The equipment in the Branson Mechanical Laboratory has been carefully arranged in a number of groups, to serve the needs of the undergraduate for efficiently carrying out the program indicated above.

Boiler Room. The boiler room contains a one-hundred horsepower oil-fired boiler with complete accessories and controls by which it may be operated by students, providing steam for all steam experiments and tests.

Steam Equipment. Conveniently located adjacent to the boiler room are a Troy horizontal self-oiling automatic steam engine, a Troy vertical throttling governor steam engine, and a Sturtevant steam turbine, together with brakes and accessories for their complete testing, either as units or as components in a small-scale power plant. Equipment for studying flow and quality of steam, an injector, and an arrangement for the study and testing of steam traps are included in this group.

AIR COMPRESSION. An electrically driven 12 x 10 Ingersoll-Rand air compressor has been arranged with accessories and instruments for testing it, and, in addition, provides means for studying the flow of high-pressure air through pipes, valves, and fittings.

INTERNAL COMBUSTION EQUIPMENT. Automobile and Diesel engines connected to electric and hydraulic dynamometers and generators are part of this laboratory. Appropriate instruments are provided for the determination

nation of capacity, mechanical and thermal efficiency, and heat balance in each case.

HYDRAULIC APPARATUS. A Cameron centrifugal pump driven by a variable speed motor provides for a very complete determination of capacity and efficiency tests, as well as being a controllable source of water for tests covering hydraulics as applied to mechanical engineering.

Instrument Room. An instrument room is provided for the storing and maintenance of instruments used in the laboratories. These instruments include: steam engine and internal combustion engine indicators and reducing motions, tachometers and speed counters, planimeters, pressure gages and calibrating equipment, thermometers of all types, scales and small tools.

LUBRICANTS AND FUELS TESTING LABORATORY. There are complete facilities for proximate analyses and calorific determinations of solid, liquid and gaseous fuels, as well as for all the standard tests of lubricants.

Additional equipment provides adequately for boiler feedwater analysis, study of the flow of water through pipes and fittings, blower testing and flow of air through ducts, and a number of tests in the field of air conditioning.

ADMISSION TO COLLEGE

GENERAL REGULATIONS

Admission to the College of Engineering of Duke University is on a selective basis, dependent upon the ability, attainments, and character of the applicant. No student is admitted until the Council on Admissions has received for him a scholastic record from school or college, a certificate of vaccination and of good health, and satisfactory evidence of good character and ability. Prospective students and relatives are invited to visit the University and the College of Engineering in particular. This would be advantageous to the applicant since it would enable him to acquaint himself with the facilities of the University, and to discuss possible courses of study.

Certain days are announced in the University Calendar each year for the registration, classification, and sectioning of students. Those students who are admitted later than the dates announced must pay to the Treasurer \$5.00 additional for the privilege of matriculation.

All correspondence relating to admission of men should be addressed to the Secretary of Duke University, Duke Station, Durham, N.C.

ADMISSION TO COLLEGE OF ENGINEERING

An applicant for admission to the Freshman Class in engineering must have completed at least fifteen units of preparatory work, partly in required and partly in elective subjects. A unit represents a year of work in a subject in an accredited secondary school, provided the work done in that subject is approximately one fourth of the annual amount of work regularly required in the school.

The subjects in which this credit may be offered and the maximum amount of credit acceptable in each subject are given in the following table:

UNITS	UNITS
Latin 4 Zc Greek 3 Gc German 3 Pl French 3 Gc Spanish 3 As Mathematics 4 M History and Civics 4 W Physics 1 Chemistry 1 Head 1 Head Head	Sotany 1 Coology 1 Deneral Biology 1 Physical Geography 1 General Science 1 Gericulture 2 Mechanical Drawing 2 Voodwork, Forging, and Machine Work 2 Household Economics 2 Commercial Subjects 3

For a detailed explanation of the units in the table above, see the definitions as set forth by the Southern Association of Colleges and Secondary Schools and other regional associations.

ADMISSION BY CERTIFICATE

Applicants able to submit certificates of proficiency from accredited schools in subjects accepted for admission to the Freshman Class will be admitted without examination. These certificates must be properly made out on the regular blanks furnished by the University, signed by the principal of the school from which the applicant comes, and presented before or at the opening of the academic year. The applicant must have completed the course of the school from which he comes.

At least nine and one half of the fifteen units required for admission must come from the following:

Required Units

English	3 ur	nits
A Foreign Language	2 ur	nits
*Science	1 ur	nit
History	1 ur	nit
**Algebra1½ or	2 ur	nits
Plane Geometry	1 ur	nit

Elective Units

In addition to the above required units, sufficient elective units must be offered to make a total of fifteen. It is recommended that these electives be chosen from the following list:

Algebra			√2 unit
Solid Geometry			½ unit
Trigonometry			√2 unit
†German or French or Latin or Spanish or Greek	1	to	4 units
History or Civics (not the required unit)	1	to	3 units
Physics or Chemistry or Biology (not the			
required unit)	1	to	3 units

ADMISSION BY EXAMINATION

Students who present fifteen units for admission from schools not accredited by the University, and students who present the proper units but whose grades are not acceptable, are required to validate their units by entrance examinations in English and in mathematics and such other tests as the University may prescribe, including the test required by the North Carolina College Conference.

Students who have not the required units in English or in mathematics but who are otherwise acceptable must, before admission, clear this deficiency by entrance examinations.

^{*} Wherever possible physics or chemistry should be offered for this requirement.

** Examination required to validate offering.

† One elective unit in any of the above languages will be accepted for admission provided the language requirement has been satisfied without it. As many as four units will be accepted in any one of these languages.

ADMISSION TO ADVANCED STANDING

Students may be admitted to advanced standing from other approved institutions under the following conditions: all applicants must have fulfilled the equivalent of the requirements for admission to the Freshman Class, must present official certificates of all work done in other institutions, and have honorable dismissal from the institutions they previously attended.

Applicants for advanced standing should present, so far as possible, subjects corresponding to those required at Duke University. Students admitted to advanced standing may not during their first semester elect more than the minimum number of hours required of the class which they enter except by permission of the Dean. Further, in addition to other requirements, a minimum of one full year in residence at Duke University with the satisfactory completion of at least thirty semester hours of work approved for Seniors, with an average grade of "C," is required of all candidates for the Bachelor's degree.

Students who have transferred from other colleges must, in order to make their provisional classification final, pass during their first year of residence not less than the equivalent of four year courses with an average grade of "C" or higher.

The date for the registration and classification of students with advanced standing from other institutions is announced in the University Calendar. Students who are admitted later than this date are required to pay to the Treasurer \$5.00 additional for the privilege of matriculating.

FRESHMAN WEEK

The week immediately preceding the opening of College is set aside for the induction of Freshmen. During this period health examinations, psychological tests, and placement tests are given, on the basis of which Freshmen are sectioned in English and mathematics. The Freshmen are divided into groups for instruction in the use of the Library, in the regulations of the student body, and in all matters pertaining to the adjustment of the individual to a new environment. Attendance upon these exercises is required of all Freshmen.

SPECIAL STUDENTS

Students of mature age not fully prepared to enter the Freshman Class may be admitted as special students and allowed to enroll for such work as they are prepared to carry. Further, they are required to take fifteen hours of classwork a week.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN CIVIL, ELECTRICAL, OR MECHANICAL ENGINEERING

GENERAL STATEMENT

The studies for the degree of Bachelor of Science in Civil, Electrical, or Mechanical Engineering are designed for students who are preparing for civil, electrical, or mechanical engineering, as a profession, and lead to the following degrees: B.S. in C.E., B.S. in E.E., and B.S. in M.E.

Each of these degrees requires one hundred and thirty-eight semester hours of work of which one hundred and twenty-two must be completed with an average grade of "C." If a foreign language is elected, it must be taken two years unless a student has sufficient entrance credits to enable him to pursue a more advanced course.

Prospective students should note that immediately after the final examination in May or June a three weeks' course in surveying is given under the direction of the Summer School. This course is required of all civil engineering students at the end of their Freshman year and is required of all other engineering students before graduation.

GROUPS OF STUDIES FOR THE DEGREE OF BACHELOR OF SCIENCE IN CIVIL, ELECTRICAL, OR MECHANICAL ENGINEERING

GROUP I

CIVIL ENGINEERING

Freshman Year FIRST SEMESTER SECOND SEMESTER S.H. S.H. Mathematics 9 5 Mathematics 10 Chemistry 1 4 Chemistry 2 4 English 2 English 1 3 Physics 17 3 Drawing 1 2 Physical Education Physics 18 17 17 Three weeks of Surveying 10 in summer. Credit, 3 semester hours.

Sophomo	
Mathematics 59 4	Mathematics 60 4
Physics 57 3	Physics 58
Statics 7 3	Kinetics 8 2
Surveying 11 2	Materials 118
Highways 15 3	Highways 117
Economics 51 3	Economics 52
Physical Education	Physical Education

18 17

Junior	Year	
S.H.	S.H.	
Strength of Materials 107 4 Curves and Earthwork 113 2 Structures 131 4 Engineering Elective 3 Elective 3 16	Hydraulics 108 4 Curves and Earthwork 114 2 Structures 132 4 Engineering Elective 3 Elective 3	
Senior	Year	
Hydraulic Engg. 123 4 Concrete 133 3 Railroads 119 3 Seminar 137 1 Electives 6	Hydraulic Engg. 124 4 Concrete 134 3 Railroads 120 2 Seminar 138 1 Astronomy 112 2 Electives 5	
17	17	
GROUP II		
Electrical H	Engineering	
Freshma	n Year	
FIRST SEMESTER	SECOND SEMESTER	
Mathematics 9 5 Chemistry 1 4 English 1 3 Physics 17 3 Drawing 1 2 Physical Education —	Mathematics 10 5 Chemistry 2 4 English 2 3 Physics 18 3 Drawing 2 2 Physical Education -	
17	17	
Three weeks of Surveying 10 in sun	imer. Credit, 3 semester hours.	
Sophomo	re Year	
Mathematics 59 4 Physics 57 3 Statics 7 3 Electrical Engineering 51 3 Economics 51 3 Steam Engineering 85 2 Physical Education -	Mathematics 60 4 Physics 58 3 Kinetics-Mechanism 82 4 Electrical Engineering 52 3 Economics 52 3 Physical Education -	
18	17	
Junior	Year	
Theory of D.C. Circuits 151 3 Hydraulics 108 4 Electrical Circuits Lab. 161 1 Heat Power Engg. 181 3 Differential Equations 131 3 Mechanical Engineering Laboratory 199 1 15	Theory of A.C. Circuits 152 3 Strength of Materials 107 4 Electrical Circuits Lab. 162 1 Heat Power Engg. 182 3 Electrical Measurements 104 3 Mechanical Engineering Laboratory 200 1 15	

Senior S.H. A.C. Machinery 257 3 Electric Power Trans. 159 3 Communication 261 3 D.C. Machinery 155 2 D.C. Machinery Lab. 163 1 Seminar 165 1 Electives 6 — 19	S.H. A.C. Machinery 258 3 Electric Power Stations 158 3 3 Communication 262 4 4 Seminar 166 1 Electives 6 6		
GROU	P III		
Mechanical ?	Engineering		
Freshma	n Year		
### FIRST SEMESTER Mathematics 9	SECOND SEMESTER Mathematics 10 5 Chemistry 2 4 English 2 3 Physics 18 3 Drawing 2 2 Physical Education 2		
$\overline{17}$	17		
Three weeks of Surveying 10 in sum	nmer. Credit, 3 semester hours.		
Sophomo	re Year		
Mathematics 59 4 Physics 57 3 Statics 7 3 Constructive Processes 79 3 Economics 51 3 Physical Education 3	Mathematics 60 4 Physics 58 3 Kinetics-Mechanism 82 4 Steam Engineering 86 3 Economics 52 3 Physical Education 3		
$\overline{16}$	$\frac{17}{17}$		
Junior Year			
Hydraulics 185 3 Strength of Materials 107 4 Electrical Engineering 153 3 Thermodynamics 187 3 Mechanical Engineering 1 Laboratory 189 1 Elective 3	Machine Design 170 3 Internal Comb. Engines 186 3 Electrical Engineering 154 3 Thermodynamics 188 3 Mechanical Engineering 2 Laboratory 190 2 Elective 3 17		
·			
Senior Machine Design 171 3 Power Plants 191 3 Mech Engg, Laboratory 193 2 Heating and Air Conditioning 195 3 Seminar 173 1 Electives 5 17	Year 3 Aeronautics 198 3 Industrial Engineering 192 3 Mech. Engg. Laboratory 194 2 Refrigeration 196 2 Seminar 174 1 Electives 6		

MECHANICAL ENGINEERING-AERONAUTICS OPTION

Since this bulletin went to press a new building has been authorized for the College of Engineering which will be used as an aeronautics laboratory. Starting with the academic year 1941-42 aeronautics courses will be offered for Juniors and Seniors. Prerequisites for this mechanical engineering option are the first two years of the curriculum as outlined in the Engineering Bulletin.

COURSES OF INSTRUCTION

COLLEGE OF ENGINEERING

Note: Courses primarily for Freshmen and Sophomores are numbered from 1 to 99; those primarily for Juniors and Seniors from 100 to 199; those primarily for Seniors and graduates from 200 to 299. The amount of credit for each course is given in semester hours following the description of the course.

The designation (w) or (E) indicates that the course is to be given on the West Campus or on the East Campus. The designation (w & E) indicates that

the course will be given on each campus.

Odd-numbered courses are offered in the fall semester and even-numbered courses are offered in the spring semester. Double numbers indicate that the course is a year course and must be continued throughout the year if credit is received.

GENERAL ENGINEERING

- 1-2. Engineering Drawing.—The study and practice of mechanical drawing of elementary machine parts with special reference to such topics as dimensioning, material specifications and elements of intersections, projections and developments. Six laboratory hours. 4 s.h. (E)

 MR. SERRELL
- 5. Descriptive Geometry.—Problems relating to point, line, plane, and solid relationships in space. One recitation, three laboratory hours. 2 s.h. (E)

 MR. SERRELL
- 7. Statics.—Concurrent forces, parallel forces, nonconcurrent and non-parallel forces, centroids, friction, moment of inertia. Prerequisites: courses 1 and 2, Mathematics 9 and 10. 3 s.h. (E)
- 8. Kinetics.—Translation, rotation, work, energy, and momentum. Prerequisites: course 7, and Mathematics 59. 2 s.h. (E)
- 107. Strength of Materials.—Elastic bodies under stress; flexure of simple, overhanging, fixed, and continuous beams; columns; combined stresses; etc. Three recitations, three laboratory hours. Prerequisite: course 7. 4 s.h.

 Staff
- 108. Hydraulics.—Hydrostatics; flow of water through orifices, weirs, pipes, and open channels; general principles of water wheels and turbines. Prerequisite: course 7. 4 s.h. (E) Either semester.

CIVIL ENGINEERING

PROFESSORS BIRD AND HALL; ASSISTANT PROFESSOR WATSON; MR. WILLIAMS

- S10. Plane Surveying.—Use of instruments; transit, stadia, compass and plane table surveying; simple triangulation; determination of meridian by observation on Polaris; differential and profile leveling; setting grade stakes; calculation of bearings, latitudes, and departures; areas by planimeter; methods of plotting; survey and plot of sections of the campus by stadia, and transit and tape. Eight hours a day, three weeks, Summer School. Prerequisites: course 1, and trigonometry. 3 s.h. (E)
- 11. Higher Surveying.—Care and adjustment of instruments; topographical surveying; surveys and resurveys; laying out and division of land; public land system; further calculations, omitted measurements, areas by double longitude; quantities from profiles and cross sections. Prerequisite: course 10. 2 s.h. (E)

- S110. Plane Surveying.—Similar to course 10 but especially arranged for students in forestry. Eight hours a day, three weeks, Summer School. Prerequisites: Engineering Drawing and Trigonometry. 3 s.h.
- 111. Higher Surveying.—For students in forestry. In addition to the ground covered in course 11, the field work includes a more thorough drill in the use of the Beaman stadia arc and the topographic abney level and trailer tape while more attention is given to the preparation of finished maps in the office work. Eight hours a day, three weeks, Summer School. Prerequisite: course 10 or 110. 3 s.h.
- 112. Field Astronomy.—Determination of latitude, longitude, time, and azimuth by observation on sun and stars; use of precise transit, solar attachment, and sextant. Prerequisite: course 11. 2 s.h. (E) Professor Bird
- 113-114. Curves and Earthwork-Highways.-Thorough drill in the calculation and laying out of simple, compound, and easement curves, widening of curves, vertical curves, setting slope stakes, ordinary earthwork computations, and mass diagrams. Prerequisite: course 10. 4 s.h. (E)

Assistant Professor Watson

15. Highway Engineering.-Location, construction, and maintenance of roads and pavements; dust prevention; road economics. 3 s.h. (E)

117. Highway Engineering.—Standard tests of stone, gravel, and bituminous materials. Prerequisite: course 15. 2 s.h. (E)

Assistant Professor Watson

- 118. Materials of Engineering.—Study and testing of materials other MR. WILLIAMS than those taken up in course 117. 3 s.h. (E)
- 119-120. Railroad Engineering.—Differences between highway and railway practice affecting curves and earthwork. A. R. E. A. transition curve, frogs, switches, and crossings. Preliminary and location survey of a railway of sufficient length to secure familiarity with methods of actual practice. Paper location made with estimate of cost. Construction and maintenance of track and trackwork, economics, and operating conditions affecting location. Prerequisite: course 113-114. 5 s.h. (E) Assistant Professor Watson

123-124. Hydraulic Engineering .-

(a) Hydrology-Factors affecting precipitation; evaporation from land and water surfaces; relation of precipitation to run-off; estimating run-off; floods and flood flows. Stream gauging.

(b) Public Water Supply-Quantity and quality of water required, hydraulics of wells, reservoirs, works for purification and distribution of water. Standard laboratory tests for chemical and bacteriological examination of

- (c) Sewerage-Sewerage systems, rainfall and storm water flow, sizes of storm and sanitary sewers, sewage disposal. Standard laboratory tests of sewage. Prerequisite: course 108. 8 s.h. (E)

 Professor Hall
- 131. Steel Structures—Stresses.—Roofs, parallel chord bridges under all types of loads, inclined top chord bridges, including subdivided panels, wind bracing. Prerequisite: course 7. 4 s.h. (E) Professor Bird
- 132. Steel Structures.—Design.—Built beams, plate girders, tension members, compression members, tension and compression members, end posts. stringers, floor beams, pins, plates, etc. Drafting. Prerequisites: courses 107 and 131. 4 s.h. (E) Professor Bird

- 133. Reinforced Concrete.—Theory and design of reinforced concrete beams, slabs, columns. Prerequisite: course 107. 3 s.h. (E) PROFESSOR BIRD
- 134. Masonry Structures.—Ordinary foundations, dams, retaining walls, arches, piers, abutments. Prerequisites: courses 107 and 133. 3 s.h. (E)
 PROFESSOR BIRD
- 137-138. Seminar.—Students are required to make reports and to talk on current engineering literature or on such other topics as may be assigned. 2 s.h. (E)
- 143-144. Projects in Civil Engineering.—This course may be assigned by the Chairman of the Department to certain Seniors who have shown an aptitude for research in one distinct field of civil engineering, in which case it may be substituted for certain general civil engineering courses. 3-6 s.h. (E) Either semester.
- E.240. Indeterminate Structures.—Introductory course dealing with the application of theory of least work, deflection, and rotation to indeterminate stresses. Problems are solved analytically, graphically, and by deformeter. Prerequisites: course 131 and ability to read French or German. 3 s.h. (E)

 PROFESSOR BIRD

ELECTRICAL ENGINEERING

PROFESSOR SEELEY; ASSISTANT PROFESSOR MEIER; MESSRS. KRAYBILL AND VAIL

- 51-52. Survey of Electrical Engineering.—A general survey course covering the entire field of electrical engineering, intended to give the electrical engineering student a general preview of the subject as a whole. Required of Sophomores. Prerequisites: Freshman mathematics and concurrent physics. 6 s.h. (E)

 Assistant Professor Meier
- 151. Theory of Direct Current Circuits.—A course consisting of lectures and recitations covering the fundamental theory of direct current circuits. Two-hour class, two-hour computation. Prerequisites: course 51-52, Physics 57-58, Mathematics 59, 60. Mathematics 131 should be taken concurrently. 3 s.h. (E)

 MR. VAIL
- 152. Theory of Alternating Current Circuits.—This course covers the algebra of vectors and complex quantities, nonsinusoidal waves, polyphase circuits, harmonics, and unbalanced three-phase circuits. Two-hour class, two-hour computation. Prerequisites: course 151, Mathematics 131. 3 s.h. (E)

 MR. VAIL
- 153-154. Principles of Electrical Engineering.—An elementary course consisting of lectures, recitations, and laboratory covering the principles of direct and alternating current machinery, and their applications, designed especially for students in civil and mechanical engineering. This course includes one three-hour period in the electrical machinery laboratory per week. Prerequisite: Physics 57-58. 6 s.h. (E)

 MESSRS. KRAYBILL AND VAIL
- 155. Direct Current Machinery.—A study of the principles which underlie the design and operation of all types of direct current machinery. Prerequisites: courses 151, 161-162. 2 s.h. (E)

 Assistant Professor Meier
- 156. Electric Transportation.—Construction, operation, and uses of electric equipment in air, land, and sea transportation. Elective. Prerequisites: courses 151, 152, 161-162, or 153-154. 3 s.h. (E)

 MR. KRAYBILL

- 158. Electric-Power Stations.—A course of lectures and recitations pertaining to the design, construction, and operation of electric power stations, both steam and hydraulic. Consideration of prime movers; generating machinery; switchboards; instruments, relays, and protective devices; operation and management; visits to neighboring plants. Prerequisites: courses 151, 152, and 187-188. 3 s.h. (E)
- 159. Electric-Power Transmission.—A course of lectures and recitations on the factors involved in the transmission of electrical energy over long distances and the use of hyperbolic functions in the solution of transmission line problems. Two-hour class, two-hour computation. Prerequisites: courses 151, 152. 3 s.h. (E)
- **161-162.** Electrical Circuits Laboratory.—This course provides experimental verification of the theory developed in courses 151 and 152, and should be taken concurrently. Three hours per week. 2 s.h. (E)

PROFESSOR SEELEY, MR. VAIL

163. Direct Current Machinery Laboratory.—A study of the technique of testing direct current machines and a thorough analysis of their performance. Concurrent with course 155. 1 s.h. (E)

ASSISTANT PROFESSOR MEIER, MR. KRAYBILL

- 165-166. Electrical Engineering Seminar.—Seniors are required to present reports and dissertations on material appearing in current engineering literature. Juniors may participate, but without credit. Scheduled at night. 2 s.h. (E)
- 257-258. Alternating Current Machinery.—This course covers the theory underlying the design, construction, and operation of synchronous generators and motors, transformers, converters, single-phase and polyphase motors of all types. Two-hour class, three-hour laboratory. Prerequisites: courses 152, 155. 6 s.h. (E)

 Assistant Professor Meier
- 261. Communication Engineering, Audio Frequency.—An advanced course on the principles underlying voice-frequency communication covering nature of speech and sound, wave propagation over metallic circuits, filters; resistance, inductance, capacitance at audio frequencies; transmission characteristics of communication equipment. Two-hour class, three-hour laboratory. Prerequisites: courses 151, 152, Mathematics 131. 3 s.h. (E)

 PROFESSOR SEELEY
- 262. Communication Engineering, Radio Frequency.—An advanced course on the principles underlying radio communication, covering vacuum tubes, vacuum-tube circuits, oscillating and coupled circuits, antennae, radiation, transmission and reception. Three-hour class, three-hour laboratory. Prerequisite: course 261. 4 s.h. (E)

 PROFESSOR SEELEY
- 263-264. Mathematical Analysis of Electrical Circuits.—An advanced course on the detailed mathematical analysis of certain circuits used in electrical engineering, with an introduction to the use of operational calculus as applied to electrical circuits. Elective. Prerequisites: courses 151, 152 and Mathematics 131. 6 s.h. (E)

 PROFESSOR SEELEY
- E.265-266. Projects in Electrical Engineering.—Project work may be undertaken only by those who show special aptitude, or who have had previous experience on some problem. The consent of the Chairman of the Department must be obtained before registering. Seniors only. Elective credit.

 3-6 s.h. (E)

 PROFESSOR SEELEY AND STAFF

MECHANICAL ENGINEERING

PROFESSOR WILBUR; ASSISTANT PROFESSOR REED; MESSRS. CHAPMAN, SERRELL, AND THEISS

- 79. Constructive Processes.—Recitation course covering fundamentals of metallography and general processes in foundry, forge, and machine shop. Trips to neighboring shops are included. Prerequisite: Chemistry 2. Open only to mechanical engineering students. 3 s.h. (E) MR. CHAPMAN
- 82. Kinetics-Mechanism.—Motions of particles; Newton's laws of motion and application to motions of rigid bodies, work, energy, impulse and momentum. Linkages, belts, cams, gears and trains of mechanism. Three lectures and three laboratory hours. Prerequisites: G. E. 2, G. E. 7, Mathematics 59. Corequisite: Mathematics 60. 4 s.h. (E)

 Assistant Professor Reed, Messrs. Chapman and Serrell
- 85. Steam Engineering.—Elementary principles of boilers, engines, turbines, and auxiliaries; properties of steam, fuels, and combustion. For electrical engineering students. Prerequisite: Physics 18. 2 s.h. (E)

 MR. SERRELL
- 86. Steam Engineering.—Elementary principles of boilers, steam engines, turbines, internal combustion engines, and auxiliaries; properties of steam, fuels, and combustion. Laboratory demonstrations of principles. Two recitations, three laboratory hours. Prerequisite: Physics 18. 3 s.h. (E)

 MESSRS. CHAPMAN, SERRELL, AND THEISS
- 170-171. Machine Design.—Applications of principles of strength of materials and constructive processes to design of riveted and welded joints, pressure vessels and machine elements, followed by design of at least one complete machine. Two lectures, three laboratory hours. Prerequisites: G. E. 107, M. E. 79, M. E. 82. 6 s.h. (E)

Assistant Professor Reed and Mr. Chapman

- 173-174. Seminar.—Students are required to make reports and to talk on current engineering literature or on such topics as may be assigned. 2 s.h. (E)
- 175-176. Projects in Mechanical Engineering.—This course may be assigned by the Chairman of the Department to certain Seniors who express a desire for such work and who have shown aptitude for research in one distinct field of mechanical engineering. Either semester. 3 s.h. (E)

 PROFESSOR WILBUR AND STAFF
- 181-182. Heat Power Engineering.—A short course in engineering thermodynamics followed by applications to power plant design. For civil and electrical engineering students. Prerequisites: M. E. 85, Mathematics 60.
 6 s.h. (E)

 ASSISTANT PROFESSOR REED
- 185. Hydraulics.—Fluid statics; kinematics of fluid flow; application of fluid dynamics theory to flow through orifices, weirs, and pipes; general principles of centrifugal pumps and turbines. Prerequisite: course 82. 3 s.h. (E)

 Professor Wilbur and Mr. Chapman
- 136. Internal Combustion Engines.—Principal cycles; fuels and fuel mixtures; effect of real mixtures on theoretical cycles; combustion; carburetion and fuel injection. Thermodynamic analysis of engine performance. Modern developments in the internal combustion engine. Three recitations. Prerequisite: M. E. 187. 3 s.h. (E)

 PROFESSOR WILBUR

187-188. Engineering Thermodynamics.—A study of thermodynamic properties and processes of gases, vapor and gas-vapor mixtures; cycles; efficiencies and performance of steam power plant equipment. Three recitations. Prerequisites: course 86 and Mathematics 60. 6 s.h. (E)

PROFESSOR WILBUR AND MR. THEISS

- 189-190. Junior Mechanical Engineering Laboratory.—Open only to mechanical engineering students. Principles of steam and fuel calorimeters; gas analysis; oil testing measurements of steam, air, and water flow; elementary steam engine and boiler tests. Three laboratory hours first semester, six hours second semester. Prerequisites: course 86 and course 187-188, concurrently. 3 s.h. (E)

 Mr. Theiss
- 191. Power Plant Calculations.—Study of economic and engineering factors in developing steam power plants. Consideration of the performance of boilers, prime movers, condensers and various auxiliaries in various groupings as they affect the plant heat balance. Three recitations. Prerequisites: M. E. 187-188 or 181-182. 3 s.h. (E)

 PROFESSOR WILBUR
- 192. Industrial Engineering.—A study of the industrial growth and present tendencies of productive industries as concerns the engineer. Specific topics treated are: plant location; organization; production and cost controls, wage payment, etc. Seniors only. Three recitations. 3 s.h. (E)

 MR. THEISS
- 193-194. Senior Mechanical Engineering Laboratory.—Advanced engineering tests of performance and economy of steam engines, turbines, boilers and power plant accessories, internal combustion engines, heating and refrigerating equipment; heat balances and heat transfer. Six laboratory hours. Prerequisite: M. E. 190. Corequisites: M. E. 191, M. E. 195, M. E. 196. 4 s.h. (E)

 MR. THEISS
- 195. Heating and Air Conditioning.—Fundamentals of heating and air conditioning, determination of heat losses and gains, design of steam, hot water and warm air heating and air conditioning systems for homes, offices, and industrial buildings. Prerequisites: M. E. 188 or M. E. 182. 3 s.h. (E)

 ASSISTANT PROFESSOR REED
- 196. Refrigeration.—Fundamentals of refrigerating systems and design, and applications in industry. Prerequisites: M. E. 188 or M. E. 182, and M. E. 190 or M. E. 200. 2 s.h. (E)

 Assistant Professor Reed
- 198. Aeronautics.—Aerodynamic principles applied to airfoils, propellors, and the complete airplane; dynamic loading and performance calculations. Prerequisites: courses 171 and 185. 3 s.h. (E)

 MR. CHAPMAN
- 199-200. Junior Mechanical Engineering Laboratory.—Open only to electrical and civil engineering students who have elected M. E. 181-182. Work covers use of various engineering measurement apparatus, flow of air, steam and water, with economy tests on steam engines and turbines, boilers and internal combustion engines. Three laboratory hours. Prerequisite: M.E.85. (E)

 MR. THEISS

REQUIRED NONENGINEERING SUBJECTS

1-2. General Inorganic Chemistry.—Lectures, recitations, and laboratory work on the elementary principles of chemistry and on the occurrence, preparation, properties, and uses of the elements and their compounds. It is desirable, though not required, that students taking this course shall have taken elementary physics either in high school or in college. One lecture, two recitations, and three laboratory hours, throughout the year. 8 s.h. (w & E) STAFF

1-2. English Composition.—All Freshmen are required to take course 1 and course 2; however, those who earn a grade of "B" or more on the work of the first semester may in the spring substitute course 4 for course 2.

Students in courses 1 and 2 who fail to earn an average grade of "C" on the work of both semesters and at least a grade of "C" on the work of the spring term are required to do the work of English 53 during their Sophomore year. Those who do not earn a grade of "D" during the first semester are required to repeat during the spring course 1; if they earn a grade of "D" or more at the end of the spring semester, they receive credit for the first half-year of work, and during their Sophomore year they are required to do the work of English 2. Students whose grades for both semesters fall below "D" must repeat the entire course during their second year. 6 s.h. (W & E)

- 53. English Composition.—A second course in composition for Sophomores. 3 s.h. Repeated in the second semester. (w & E)
- 9-10. Engineering Mathematics.—This course, given for Engineering Freshmen and other students who desire to take more than six hours of mathematics in their Freshman year, includes college algebra, plane trigonometry, and plane and solid analytic geometry. 10 s.h. (E)
- **59.** Differential Calculus.—Each semester. Prerequisite: course 9-10, or equivalent. **4 s.h.** (w & E)
- 60. Integral Calculus.—Each semester. Prerequisite: course 59. 4 s.h. (w & e)
- 131. Differential Equations.—A study of the more common types of ordinary differential equations. Primarily a problem course for engineers. Prerequisite: course 60. 3 s.h. (w)
- 17-18. Engineering Physics.—A course covering the field of general physics with emphasis on fundamental principles. Open only to engineering students. 6 s.h. (E) Assistant Professor Mouzon; Drs. Bonner and Hebb
- 57-58. Engineering Physics.—This course is a continuation of Physics 17-18 open to engineering students upon satisfactory completion of 17-18. Two lectures (E) and one three-hour laboratory (w) each week. 6 s.h.

ASSISTANT PROFESSOR MOUZON; DRS. BONNER AND HEBB

104. Electrical Measurements.—Exact measurements of resistance, current, voltage, inductance and capacity. A fundamental course in electrical engineering or course 103 is a prerequisite. Two lectures and one three-hour laboratory period per week. 3 s.h. (w)

Professor Nielsen and Assistant Professor Constant

51-52. Principles of Economics.—For Sophomores. 6 s.h. (w & E)

STAFF

PARTIAL LIST OF RECOMMENDED ELECTIVE SUBJECTS

- 103. (Economics) Transportation.—Essential features, problems, and competitive positions of rail, highway, water, and air transportation. Special attention is devoted to valuation, rates, and regulation as applied to railway transportation. Collateral reading and the preparation of papers are required. For Juniors and Seniors. 3 s.h. (w)

 Assistant Professor Landon
- 105. (Economics) Industrial Management and Business Forecasting.—A study of the organization and management of industry, with emphasis upon the business applications of the principles developed. Problems of interrelations of functions operating in the several fields of management, such as production control, personnel, and the forecasting of business conditions. For Juniors. 3 s.h. (w)

- 115. (Economics) Economic Geography.—This course is not open to students who have received credit for Economics A. The study of the interrelation of human activities and environmental elements. The discussion embraces location, maps and their interpretation, the major climatic regions, seasonal influences, weather, lands and their uses, soils and minerals, bodies of water, plants, animals, and the work of man as environmental factors.

 3 s.h. (E)

 ASSISTANT PROFESSOR LEMERT
- **57-58.** (Economics) First-Year Accounting.—Elementary principles of single proprietorship, partnership, and corporation accounting. Supervised laboratory periods will be assigned. **6 s.h.** (w)
- 138. (Economics) Business Statistics.—A year's course in elementary statistics designed principally for students of economics and business administration. The material is also of interest to those specializing in engineering, forestry, political science, sociology, and other subjects. The first term is devoted to a study of statistical methods; the second term, to application of these methods. Very little algebra and no higher mathematics are required. Offered both semesters. 3 s.h.

PROFESSOR SMITH AND ASSOCIATE PROFESSOR BERRY

- 181-182. (Economics) Business Law.—The fundamental principles of law as applied to common business transactions. The topics presented are: contracts, agency, bailments, sales, negotiable instruments, partnerships, corporations, and bankruptcy. Textbook: Bays, Business Law. Casebook: Bays, Cases on Commercial Law. 6 s.h. (w)

 Assistant Professor Springer
- 151. (English) Public Speaking.—A course in the fundamentals of public speaking with emphasis upon the effective presentation of ideas. 3 s.h. (w)

 Assistant Professor Herring and Mr. Lewis
- 152. (English) Argumentation.—A course dealing with the principles of argumentation and debating with special emphasis upon brief-making and practice-speaking. Public questions are studied as parallel work. 3 s.h. (w)

 Assistant Professor Herring and Mr. Lewis
- 103. (Botany) General Bacteriology.—Laboratory and lectures. 4 s.h. (w) First semester. (E) Second semester. Professor Wolf
- 51. General Geology.—This course is designed to give a general view of the surface features of the earth, their origin, structure, and materials. Illustrative materials are studied in the laboratory. Excursions are made to neighboring points where the principles of the science are studied in the field. Three one-hour lectures or recitations and one three-hour laboratory. 4 s.h. (w)

 ASSOCIATE PROFESSOR BERRY
- 52. General Geology.—This course is designed to give some knowledge of the chief events of the earth's history. Excursions will be made to suitable neighboring localities. Three one-hour lectures or recitations and one three-hour laboratory. Prerequisite: Geology 51. 4 s.h. (w)

 ASSOCIATE PROFESSOR BERRY
- 51-52. History of Art.—The survey course for upperclassmen treats each art as a unit, relating it to its background and its companion arts wherever possible, but leaving many of the problems of correlation to the initiative of the student. The development of architecture is considered in course 51, the development of sculpture and painting in course 52. Courses 51 and 52 are both offered each semester. Credit for a single semester will be given only to Seniors electing it during their last semester. The courses are not open to Freshmen or to students who have had course 1-2. 6 s.h. (w & E)

51, Assistant Professor Hall; 52, Assistant Professor McDonald

FEES AND EXPENSES

The following tables show the general fees and charges collected from all students and the special fees collected from those taking courses in the sciences and in history. All fees for each semester are due and payable, unless otherwise specified, at the time of registration at the beginning of that semester, and no student is admitted to classes until arrangements have been made with the Treasurer of the University for the settlement of fees.

GENERAL FEES

Matriculation, per semester\$ Tuition, per semester	25.00 100.00
Athletic Fee, admitting students to all athletic contests held on the University grounds, per semester	5.00 1.00 5.00 5.00 5.00
Publication Fee: First semester. Second semester. Diploma Fee, payable by candidates for degrees at the beginning of the	2.50 3.00
second semester, refunded if the diploma is not awarded Tuition, Registration, Room-rent, Summer Surveying S10	5.00 26.00
LABORATORY AND MATERIALS FEES	
Botany 1, 2, 52, 55, 104, 202, 204, 221, 255, and 256\$ Botany 51, 103, 151, 156, 203, 216, and 252	2.50 5.00 2.50 7.00 8.50 1.00 7.50 2.50
Civil S10 and S110—See Summer School Bulletin. Civil 11, 107, 111, 112, 113, 114, 117, 118, 119, 123, 124, 143, 144, and 240. Electrical 153, 154, 161, 162, 163, 258, 261, 262. Mechanical 86, 189, 190, 193, 194, 199, and 200. Forest Botany 224 and 253. Forestry 224, 253, 254, 259, 260, 264, 357a, and 358a. Forestry 261, 351, 352, 357b, 358b. Geology 51, 52, 101, 151, and 152. Geology 102. Field trip in Geology 51-52 and 101-102 at cost.	2.00 2.00 2.50 2.50 2.50 5.00 2.50 5.00

history 91 and 92	3.00
No texts are required in these courses, but a fee of \$3.00 is	
charged, and books are placed in the Library for the use of those	
taking the courses. This fee is payable at the beginning of the	
semester and is collected through the office of the Treasurer of the	
University.	
Physics 1 and 2	2.00
Di. 1. 57 50 (1 (2 102 104 100 215 217 210 1 210	
Physics 57, 58, 61, 62, 103, 104, 108, 215, 216, 217, 218, and 219	3.00
Physics 51, 52, and 106	5.00
Zoology 1, 2, 92, 161, 204, 219, 220, 222, 274, 306, 324, 343, 353, and 354	3.00
7 1 17 107 207 207 207 207 207 307, 307, 307, 307, 307, 307, 307, 30	
Zoology 53, 151, 156, 224, 229, 303, and 321	5.00

ESTIMATED EXPENSES FOR AN ACADEMIC YEAR

The necessary expenses of a student are moderate; the University dormitories provide thoroughly comfortable and wholesome living conditions at a minimum of cost, while all charges made by the University have been kept low. Incidental expenses depend naturally upon the tastes and habits of the individual, but the actual necessary college expenses for one year, including board, room-rent, and such University fees as tuition, matriculation, commencement, library, damage, and medical, vary from \$574.50 to \$639.50. Books and laundry are not included in these figures, nor an estimated cost of \$20.00 to \$25.00 for drawing equipment.

The Athletic and Publication fees, also included in the above figures, while not essentially University fees, are at the request of the students collected by the Treasurer of the University as designated above. The proceeds of these fees are turned over to these distinct and separate student activities. The Athletic Fee entitling the holder to admission to all athletic contests held on the University grounds is collected from all regularly enrolled students. The Publication Fee pays for a blanket subscription to the semiweekly student newspaper, the monthly student magazine, and the student yearbook. With all undergraduates this charge is compulsory, but in the case of graduate students it is optional.

DORMITORIES

The regular fee for room-rent in the Southgate Building, set aside for engineering students, is \$50.00 per semester (two in a room).

Rooms in Epworth Hall, East Campus, are open to men students for

a rental of \$30.00 per student, per semester.

Rooms are reserved only for applicants who have been officially accepted by the University, upon application to the Director in the Business Division, College Station, Durham, North Carolina. A reservation fee of \$25.00 must accompany the application for a room. The reservation fee is deducted from the room charges at the time of registration for the fall semester. An applicant who is accepted and has a room reserved is not entitled to a refund of the reservation fee unless the request is made on or before August 1.

A resident student in order to retain his room for the succeeding year is requested to make application accompanied by a reservation fee of \$25.00 between April 15 and May 15 at the office of the Director in the

Business Division. All rooms which have not been reserved on or before May 15 will be considered vacant for the succeeding year and will be

reserved in the order in which applications are made.

Rooms are rented for no shorter period than one semester, or in the case of a medical student, one quarter, unless by special arrangement with the Director in the Business Division. A period of occupancy other than a semester or quarter and without special arrangement will be charged at a minimum rate of \$1.00 each day.

The authorities of Duke University do not assume the responsibility of selecting and assigning roommates, though they will gladly render any

assistance possible.

BOARDING ACCOMMODATIONS

It is the policy of the University to furnish board to its students at actual cost. Charges for board will not exceed an average of \$25.00 per month.

LAWS REGULATING PAYMENTS

The Executive Committee of the Trustees of Duke University has enacted the following regulations, which govern the payment of all fees due the University:

- 1. The President and Treasurer of the University have no authority to suspend, or in any way alter, these regulations.
 - 2. Matriculation and tuition fees are never refunded.
- 3. Any student who has failed to pay his bills on the dates advertised in the catalogue is denied the right to attend classes until his account is settled in full.
- 4. No student is considered by the Faculty as an applicant for graduation until he has settled with the Treasurer for all of his indebtedness to the University.
- 5. No student who has not settled all his bills with the Treasurer of the University is allowed to stand the mid-year or final examinations of the academic year.

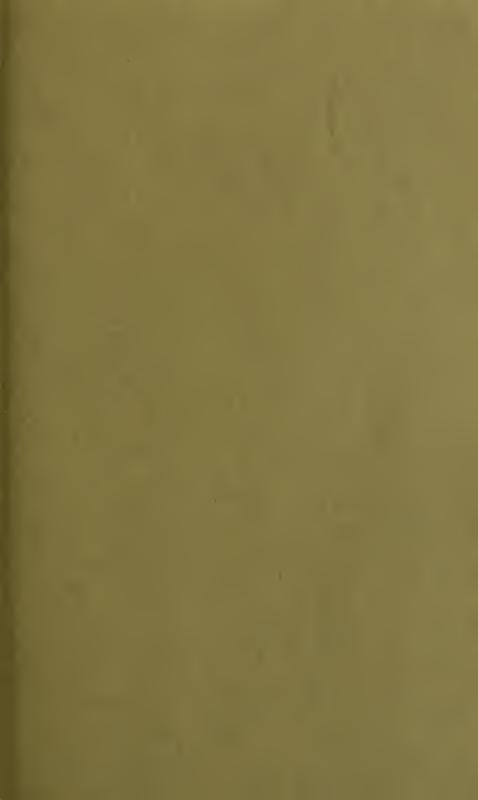
When a student wishes his bills sent to his parents or guardian, the student or his parent or guardian must so notify the Treasurer of the University in writing in due time, but this in no way releases the student from liability to established penalties if his bills are not paid on the dates advertised.

TRANSCRIPTS

Students desiring to transfer from Duke University to another institution are entitled to one transcript of their record. A charge of \$1.00 is made for each additional copy.

ENGINEERING ORGANIZATIONS AND FRATERNITIES

American Institute of Electrical Engineers; American Society of Civil Engineers; American Society of Mechanical Engineers; Delta Epsilon Sigma (Honorary Engineering Fraternity); The Engineers' Club.





VOLUME 13

March, 1941

NUMBER 4

BULLETIN OF DUKE UNIVERSITY

The Summer School



1941

First Term: June 10-July 21 Second Term: July 22-August 30

ANNOUNCEMENT

JUNALUSKA SCHOOL OF RELIGION (AFFILIATED WITH DUKE UNIVERSITY)

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DURHAM, NORTH CAROLINA

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For Bulletin of Undergraduate Instruction, apply to *The Secretary*, Duke University, Durham, N. C.

For Bulletin of The Graduate School of Arts and Sciences, apply to The Dean of the Graduate School, Duke University, Durham, N. C.

For Bulletin of The School of Forestry, apply to The Dean of the School of Forestry, Duke University, Durham, N. C.

For Bulletin of The School of Law, apply to The Dean of the School of Law, Duke University, Durham, N. C.

For Bulletin of The School of Medicine, apply to The Dean of the School of Medicine, Duke University, Durham, N. C.

For Bulletin of The School of Nursing, apply to The Dean of the School of Nursing, Duke University, Durham, N. C.

For Bulletin of The School of Religion, apply to The Registrar of the School of Religion, Duke University, Durham, N. C.

For Bulletin of The College of Engineering, apply to *The Secretary*, Duke University, Durham, N. C.

For Bulletin of The Summer School, apply to The Director of the Summer School, Duke University, Durham, N. C.

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BULLETIN

OF

DUKE UNIVERSITY

SUMMER SCHOOL ANNOUNCEMENT



1941

FIRST TERM: JUNE 10-JULY 21 SECOND TERM: JULY 22-AUGUST 30

ANNOUNCEMENT

JUNALUSKA SCHOOL OF RELIGION (AFFILIATED WITH DUKE UNIVERSITY)

DURHAM, NORTH CAROLINA 1941



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SUMMER SCHOOL ANNOUNCEMENT

ADMINISTRATIVE OFFICERS

*WILLIAM PRESTON FEW, A.B., A.M., LL.D., President of Duke University

**ROBERT LEE FLOWERS, A.M., LL.D.,
PRESIDENT OF DUKE UNIVERSITY

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DIRECTOR OF THE SUMMER SCHOOL AND CHAIRMAN OF THE UNIVERSITY
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MARY IRENE KESTLER, A.B., A.M., Social Director and Acting Dean of Women (Second Term)

FACULTY

Adams, Donald Keith; A.B., Pennsylvania State College; A.M., Harvard; Ph.D., Yale; Psychology (Duke University).

Berry, Edward Willard; A.B., Ph.D., Johns Hopkins; Geology (Duke University).

BIGELOW, LUCIUS AURELIUS; B.S., Massachusetts Institute of Technology; Ph.D., Yale; Chemistry (Duke University).

BIRD, HAROLD CRUSIUS; Ph.B., C.E., Yale; CIVIL ENGINEERING (Duke University).

^{*} Deceased. ** Elected, February 29, 1941.

- Blomquist, Hugo Leander; B.S., University of Chicago; Pasteur Institute, 1919; Ph.D., University of Chicago; Botany (Duke University).
- Brownell, William Arthur; A.B., Allegheny College; A.M., Ph.D., University of Chicago; Educational Psychology (Duke University).
- Cannon, James, III; A.B., Duke; A.M., Princeton; Th.B., Th.M., Princeton Theological Seminary; Edinburgh University, 1919; Garrett, 1924; D.D., Birmingham-Southern College; Religion (Duke University).
- Carlitz, Leonard; A.B., Ph.D., University of Pennsylvania; Mathematics (Duke University).
- CARR, JOHN WINDER, JR.; A.B., Duke; A.M., Ph.D., Columbia; EDUCATION (Duke University).
- Childs, Benjamin Guy; A.B., A.M., University of Virginia; University of Virginia, 1921-22; Education (Duke University).
- CLYDE, PAUL HIBBERT; A.B., A.M., Ph.D., Stanford; HISTORY (Duke University).
- COLE, ROBERT TAYLOR; A.B., University of Texas; A.M., Ph.D., Harvard; POLITICAL SCIENCE (Duke University).
- COWPER, FREDERICK AUGUSTUS GRANT; A.B., A.M., Trinity College (Conn.); University of Strassburg, 1906-07; University of Geneva, 1907-08; Ph.D., University of Chicago; FRENCH (Duke University).
- CUNNINGHAM, BERT; B.S., M.S., Illinois Wesleyan; A.M., Duke; Ph.D., University of Wisconsin; Zoology (Duke University).
- DEVYVER, FRANK TRAVER; A.B., A.M., Oberlin College; A.M., Ph.D., Princeton; Economics (Duke University).
- GARDINER, ANN HENSHAW; R.N., Grad. Shepherd Normal School (W. Va.); B.S., Columbia; University of Washington Medical School of Hygiene, 1924-25; M.S., Kansas State College; Hygiene (Duke University).
- Gergen, John Jay; A.B., A.M., University of Minnesota; Ph.D., Rice Institute; Mathematics (Duke University).
- GILBERT, ALLAN H.; B.A., Cornell; A.M., Yale; Ph.D., Cornell; English (Duke University).
- GRAY, IRVING EMERY; B.S., Massachusetts State College; M.S., Ph.D., University of Wisconsin; Zoology (Duke University).
- HALL, WILLIAM HOLLAND; A.B., A.M., Duke; B.C.E., University of Michigan; M.S.C.E., University of Wisconsin; Engineering (Duke University).
- HART, HORNELL NORRIS; A.B., Oberlin College; A.M., University of Wisconsin; Ph.D., University of Iowa; Sociology (Duke University).
- HUBBELL, JAY BROADUS; A.B., University of Richmond; A.M., Harvard; Ph.D., Columbia; English (Duke University).
- JENSEN, HOWARD EIKENBERRY; A.B., A.M., University of Kansas; B.D., Ph.D., University of Chicago; Sociology (Duke University).
- JORDAN, BRADY RIMBEY; Litt.B., Princeton; Ph.D., University of Wisconsin; FRENCH (Duke University).
- Kramer, Paul Jackson; A.B., Miami (Ohio); M.S., Ph.D., Ohio State University; Botany (Duke University).

- KRUMMEL, CHARLES ALBERT; Ph.B., Central Wesleyan College; Ph.M., Syracuse; Ph.D., University of Wisconsin; University of Marburg, 1910; German (Duke University).
- LANNING, JOHN TATE; A.B., Duke; A.M., University of California; University of London, 1926-27; Ph.D., University of California; HISTORY (Duke University).
- LAPRADE, WILLIAM THOMAS; A.B., Washington Christian College; Ph.D., Johns Hopkins; HISTORY (Duke University).
- LUNDEBERG, OLAV K.; A.B., St. Olaf College; A.M., Ph.D., University of Minnesota; Université de Montpellier, 1918; Centro de Estudios Históricos, Madrid, 1929; SPANISH (Duke University).
- MAUGHAN, WILLIAM; B.S., University of Minnesota; M.F., Yale; FORESTRY (Duke University).
- MITCHELL, FRANK KIRBY; A.B., Millsaps; A.M., University of Michigan; Oriel College, Oxford, 1921-24; English (Duke University).
- MYERS, HIRAM EARL; A.B., Duke; S.T.B., S.T.M., Boston University; Re-LIGION (Duke University).
- Pearse, Arthur Sperry; B.S., A.M., University of Nebraska; Ph.D., Harvard; Zoology (Duke University).
- PROCTOR, ARTHUR MARCUS; A.B., Duke; A.M., Ph.D., Columbia; Education (Duke University).
- RANKIN, ROBERT STANLEY; A.B., Tusculum College; A.M., Ph.D., Princeton; POLITICAL SCIENCE (Duke University).
- RANKIN, WILLIAM WALTER: B.E., North Carolina State College of Agriculture and Engineering; A.M., University of North Carolina; Harvard, 1914-15; Columbia, 1919-21; MATHEMATICS (Duke University).
- Scates, Douglas Edgar; A.B., Whitworth; Ph.D., University of Chicago; Education (Duke University).
- SCHUMACHER, FRANCIS X.; B.S., University of Michigan; Forestry (Duke University).
- Shipman, George A.; B.A., M.A., Wesleyan University; Ph.D., Cornell; Political Science (Duke University).
- SMITH, HILRIE SHELTON; A.B., Elon College; Ph.D., Yale; D.D., Defiance College; Religious Education (Duke University).
- Spengler, Joseph John; A.B., A.M., Ph.D., Ohio State University; Economics (Duke University).
- THOMAS, JOSEPH MILLER; A.B., Ph.D., University of Pennsylvania; MATHEMATICS (Duke University).
- WALTON, LORING BAKER; A.B., Princeton; Harvard, 1917-18; Lic. ès L., Sorbonne; FRENCH (Duke University).
- Webb, Albert Micajah; A.B., A.M., Yale; Sorbonne (Paris) and Madrid, 1907-08; Sorbonne, 1923; French (Duke University).
- WILSON, ROBERT NORTH; A.B., Haverford College; M.S., University of Florida; Harvard, 1905-06; University of Illinois, 1923-24; Yale, 1931-32; Chemistry (Duke University).

- ZENER, KARL EDWARD; Ph.B., University of Chicago; A.M., Ph.D., Harvard; National Research Fellow in Psychology, University of Berlin, 1926-27; Psychology (Duke University).
- Anderson, Charles Roberts; A.B., A.M., University of Georgia; Ph.D., Duke; English (Duke University).
- Arrowood, Charles Flinn; A.B., Davidson College; B.D., Union Theological Seminary; A.B., Rice Institute; A.M., Ph.D., University of Chicago; Education (University of Texas).
- AYCOCK, THOMAS MALCOLM; B.S., Oklahoma State College; M.S., University of Iowa; Health Education (Duke University).
- BAUGH, ALBERT CROLL; A.B., A.M., Ph.D., University of Pennsylvania; English (University of Pennsylvania).
- Bettersworth, John K.; A.B., Millsaps College; Ph.D., Duke; History (Mississippi State College).
- BLACK, MARTIN LEE, JR.; A.B., Duke; M.B.A., Northwestern; C.P.A., Illinois and North Carolina; Accounting (Duke University).
- BOND, GEORGE WILLIAM; B.S., University of Arkansas; A.M., University of Chicago; Ph.D., Columbia; Education (Southeastern Louisiana College).
- Bond, Richmond P.; A.B., Vanderbilt University; A.M., Ph.D., Harvard; English (University of North Carolina).
- Bridgers, Furman Anderson; A.B., Duke; A.M., University of Chicago; University of Chicago, 1928-29, 1933; Spanish (Duke University).
- Brown, M. Gordon; A.B., Washington Missionary College; A.M., Emory University; Doctour de l'Université de Dijon; Doctor en Filosofía y Letras, Madrid; French and Spanish (Georgia School of Technology).
- CARPENTER, DAVID WILLIAMS; A.B., A.M., Ph.D., Duke; PHYSICS (Duke University).
- Constant, Frank Woodbridge; B.S., Princeton; Ph.D., Yale; Physics (Duke University).
- CURTIS, KADER RANDOLPH; B.A., Wake Forest College; M.Ed., Duke; EDUCATION (Superintendent of Wilson County Schools).
- Davis, Charles Shepard; B.S., M.S., Alabama Polytechnic Institute; Ph.D., Duke; History (Alabama Polytechnic Institute).
- Davis, Gifford; A.B., Bowdoin College; A.M., Ph.D., Harvard; French (Duke University).
- DURAND, DANA BENNETT; S.B., Ph.D., Harvard; HISTORY (Harvard).
- EASLEY, HOWARD; A.B., Union University, Tenn.; A.M., Ph.D., George Peabody College; Educational Psychology (Duke University).
- EITEMAN, WILFORD J.; A.B., A.M., Ohio Wesleyan University; Ph.D., Ohio State University; Economics (Duke University).
- GAMBLE, GUY C.; B.S., Ph.D., Columbia; EDUCATION (Economic Consultant, Federal Trade Commission, Washington, D. C.).
- Gates, Paul Wallace; B.S., Colby College; M.A., Clark College; Ph.D., Harvard; History (Cornell University).

- GODARD, JAMES McFATE; A.B., Park College; A.M., Duke; Duke, 1930-31, 1932-36; Education (Queens College).
- GOLDTHORPE, J. HAROLD; A.B., Hamline University; A.M., Ph.D., University of Minnesota; Education (Research Staff, American Council on Education).
- GREEN, FLETCHER M.; Ph.B., Emory; A.M., Ph.D., University of North Carolina; HISTORY (University of North Carolina).
- GRIGGS, EARL LESLIE; B.A., University of Colorado; A.M., Columbia; Ph.D., University of London; English (University of Pennsylvania).
- GWYNN, JOHN MINOR; A.B., A.M., University of North Carolina; Ph.D., Yale; Education (University of North Carolina).
- GWYNN, PRICE HENDERSON, JR.; A.B., A.M., University of North Carolina; B.D., Yale Divinity School; Ph.D., Yale; EDUCATION (Davidson College).
- HASBROUCK, FRANCIS MAHLON; A.B., Ph.D., Johns Hopkins University; FRENCH AND SPANISH (Duke University).
- HAWKES, EVELYN JONES; A.B., A.M., Duke; Ph.D., University of Pennsylvania; SECONDARY EDUCATION (New Jersey College for Women).
- HIGHSMITH, JOHN HENRY; A.B., A.M., Duke; Columbia, 1904-06; LL.D., Catawba College; D.Ed., Wake Forest College; Public School Administration (Director, Division of Instructional Service, North Carolina State Department of Public Instruction).
- HILLEGAS, MILO BURDETTE; Ph.B., University of Rochester; Ph.D., Columbia; LL.D., University of Vermont; EDUCATION (Columbia University).
- HILLMAN, JAMES ELGAN; B.Ped., Berea College; B.S., A.M., Ph.D., George Peabody College; Education (Director of Professional Service, North Carolina State Department of Public Instruction).
- HOLSOPPLE, JAMES QUINTER; B.S., Ph.D., Johns Hopkins; National Fellow, Johns Hopkins; Educational Psychology (Chief Psychologist, New Jersey State Hospital).
- HORNBERGER, THEODORE; A.B., A.M., Ph.D., University of Michigan; English (University of Texas).
- Howard, George; A.B., Davidson College; A.M., Ph.D., Columbia; Education (Supervisor Secondary Schools, Panama Canal Zone).
- JERNIGAN, CHARLTON CONEY; A.B., A.M., Ph.D., Duke; GREEK LITERATURE (Woman's College of University of North Carolina).
- Kemp, Edward H.; A.B., Wake Forest College; Ph.D., Clark University; Psychology (Duke University).
- Lemert, Ben Franklin; B.S.E., M.S., Ohio State University; Ph.D., Columbia; Economics (Duke University).
- MABBOTT, THOMAS OLLIVE; A.B., Ph.D., Columbia; English (Hunter College).
- MANCHESTER, ALAN KREBS; A.B., Vanderbilt; A.M., Columbia; Ph.D., Duke; HISTORY (Duke University).
- MATHEWS, JOSEPH JAMES; A.B., A.M., Duke; Ph.D., University of Pennsylvania; HISTORY (University of Mississippi).
- MAXWELL, WILLIAM CARY; A.B., A.M., Duke; Ph.D., University of Heidelberg; GERMAN (Duke University).

- Mouzon, James Carlisle; A.B., Southern Methodist University; Ph.D., California Institute of Technology; Physics (Duke University).
- MURNAGHAN, FRANCIS D.; B.A., M.A., D.Sc., National University of Ireland; MATHEMATICS (Johns Hopkins University).
- Odell, Charles Watters; A.B., A.M., DePauw University; Ph.D., University of Illinois; Educational Psychology (University of Illinois).
- OVERN, ALFRED VICTOR; A.B., M.S., Ph.D., University of Minnesota; EDUCATION (University of North Dakota).
- PARKER, WILLIAM RILEY; A.B., Roanoke College; A.M., Princeton; B.Litt., Oxford; English (Ohio State University).
- Perry, Harold Sanford; A.B., New York State College for Teachers; Ph.D., Cornell; Botany (Duke University).
- Punké, 'Harold Herman'; B.S., M.S., University of Illinois; Ph.D., University of Chicago; Education (University of Georgia).
- REID, JOHN TURNER; A.B., A.M., Ph.D., Stanford University; SPANISH (Duke University).
- ROBERT, JOSEPH CLARKE; B.A., Furman; A.M., Ph.D., Duke; HISTORY (Duke University).
- ROBERTS, JOHN HENDERSON; A.B., Ph.D., University of Texas; National Research Fellow, University of Pennsylvania, 1929-30; MATHEMATICS (Duke University).
- ROOT, PAUL ADELBERT; A.B., Asbury College; B.D., Ph.D., Duke; Sociology (Southern Methodist University).
- ROPP, THEODORE; A.B., Oberlin; A.M., Ph.D., Harvard; History (Duke University).
- SANDERS, CHARLES RICHARD; B.Ph., A.M., Emory University; Ph.D., University of Chicago; English (Duke University).
- SAYLOR, JOHN HENRY; A.B., Southern Methodist University; A.M., Ph.D., Duke; CHEMISTRY (Duke University).
- SHIELDS, JOHN HERMAN; A.B., A.M., University of Texas; Columbia, 1924-26; Accounting (Duke University).
- Shryock, Richard Harrison; B.S.Ed., Ph.D., University of Pennsylvania; History (University of Pennsylvania).
- SLAY, RONALD JAMES; B.S., University of Mississippi; A.M., Ph.D., Columbia; TEACHING OF SCIENCE (East Carolina Teachers College).
- SMITH, ROBERT SIDNEY; A.B., A.M., Amherst College; Ph.D., Duke; Eco-NOMICS (Duke University).
- Spargo, John Webster; A.B., Washington University; A.M., Ph.D., Harvard; Sheldon Traveling Fellow of Harvard, 1926-27, at University of Copenhagen; English (Northwestern University).
- Stowe, Ancel Roy Monroe; Ph.B., A.M., Northwestern; A.M., Harvard; Ph.D., Columbia; Education (University of New Hampshire).
- STRANG, RUTH M.; B.S., A.M., Ph.D., Columbia; EDUCATION (Columbia University).

- SWEARINGEN, MACK BUCKLEY; A.B., Millsaps College; A.M., Ph.D., University of Chicago; HISTORY (Georgia State College).
- THOMPSON, EDGAR TRISTRAM; A.B., University of South Carolina; A.M., University of Missouri; Ph.D., University of Chicago; Sociology (Duke University).
- TIREMAN, LOYD SPENCER; B.A., Upper Iowa University; A.M., Ph.D., University of Iowa; Education (University of New Mexico).
- WALLIN, JOHN EDWARD WALLACE; A.B., Augustana College; A.M., Ph.D., Yale; Educational Psychology (Director of Special Education and Mental Hygiene, Delaware State Department of Public Instruction).
- WARD, CHARLES EUGENE; A.B., Baker University; A.M., Ph.D., Duke; English (Duke University).
- WATSON, JOHN DARGAN; A.B., Furman; B.S., M.S., University of North Carolina; Sc.D., Harvard; Engineering (Duke University).
- Wedel, Oswald Henry; B.A., University of Arizona; A.M., Ph.D., Stanford University; History (University of Arizona).
- West, Alfred Thurber; B.S., Alabama Polytechnic Institute; A.M., University of Alabama; Teachers Certificate from American Academy of Dramatic Art; English (Duke University).
- Woody, Robert Hilliard; Ph.B., Emory University; A.M., Ph.D., Duke; History (Duke University).
- Anderson, Lewis Edward; B.S., Mississippi State College; A.M., Duke; Ph.D., University of Pennsylvania; Botany (Duke University).
- BONNER, LYMAN GAYLORD; A.B., University of Utah; Ph.D., California Institute of Technology; Physics (Duke University).
- BOOKHOUT, CAZLYN GREEN; A.B., St. Stephens College; A.M., Syracuse University; Ph.D., Duke; Zoology (Duke University).
- Bradsher, Charles Kilgo; A.B., Duke; A.M., Ph.D., Harvard; Chemistry (Duke University).
- Brown, Frances; A.B., Agnes Scott College; Ph.D., Johns Hopkins; Chemistry (Duke University).
- Bruinsma, Henry A.; B.M., M.M., University of Michigan; Music (Duke University).
- Carpenter, James Madison; A.B., A.M., University of Mississippi; Ph.D., Harvard; English (Duke University).
- GIBSON, WILLIAM MARION; B.A., University of Richmond; A.M., Ph.D., Duke; POLITICAL SCIENCE (Duke University).
- HARWELL, GEORGE CORBIN; A.B., A.M., Ph.D., Duke; English (Duke University).
- HILL, DOUGLAS; A.B., Yale; A.M., Ph.D., Princeton; Chemistry (Duke University).
- HOBBS, MARCUS EDWIN; A.B., A.M., Ph.D., Duke; CHEMISTRY (Duke University).
- JOHN, LENORE SUSAN; A.B., York College; A.M., University of Chicago; Chicago, 1927-30; ELEMENTARY EDUCATION (Specialist in Arithmetic, University of Chicago Laboratory School).

- JOHNSON, MYCHYLE W.; A.B., Ph.D., University of Indiana; Zoology (Duke University).
- KEECH, JAMES MAYNARD; A.B., A.M., Ph.D., Duke; Accounting (Duke University).
- LANDON, CHARLES E.; A.B., A.M., University of Kansas; Ph.D., University of Illinois; Economics (Duke University).
- Lewis, Leroy; A.B., Oklahoma City University; A.M., University of Michigan; Speech (Duke University).
- McCloy, Shelby Thomas; A.B., A.M., Davidson College; B.Litt., B.A., Oxford; Ph.D., Columbia; History (Duke University).
- McEwen, Noble Ralph; A.B., Birmingham-Southern College; A.M., Duke; Duke, 1930-32; Education (Salem College).
- PORTER, ESTELLE RAWL; A.B., Winthrop College; Smith College, 1922-23; University of Chicago, 1926-27; ELEMENTARY EDUCATION (Queens College).
- RAYMOND, MARY LOIS; A.B., Mount Holyoke College; A.M., Radcliffe College; University of Wisconsin, 1919-20; University of Madrid and University of Paris, 1921-22; School of International Studies, Geneva, 1928; FRENCH (Duke University).
- SIMPSON, WILLIAM HAYS; A.B., Tusculum College; A.M., Ph.D., Duke; POLITICAL SCIENCE (Duke University).
- WATSON, KARL BRANTLEY, JR.; B.S., A.B., University of Chattanooga; A.M., Ph.D., Duke; Education (Duke University).
- Welfling, Weldon Woodrow; A.B., Swarthmore College; A.M., Ph.D., Princeton; Economics (Duke University).
- Wharton, George Willard, Jr.; B.S., Ph.D., Duke; Zoology (Duke University).
- WILLIAMS, JAMES WESLEY; A.B., Duke; B.S., Georgia School of Technology; Engineering (Duke University).
- ABRAMOVITCH, BENJAMIN; B.S., McGill University; Duke, 1938-41; Assistant in Chemistry (Duke University).
- AYRES, ERLE BINGHAM; S.B., A.M., Boston University; Duke, 1939-41; ASSISTANT IN CHEMISTRY (Duke University).
- CHAMBERS, ROBERT LEE; B.S., University of Illinois; DIRECTOR OF RECREATION PROGRAM (Duke University).
- DIBELER, VERNON HAMILTON; B.S., A.M., Duke; Duke, 1940-41; Assistant IN CHEMISTRY (Duke University).
- Jenkins, William A.; A.B., Duke; Johns Hopkins, 1940-41; Assistant in Geology (Johns Hopkins University).
- LINSCHITZ, HENRY; B.S., College of the City of New York; Duke, 1940-41; Assistant in Chemistry (Duke University).
- MASON, MARY LOCHER; Diploma, Maryland Institute; Diploma in Fine Arts, Teachers College, Columbia; DRAWING (Durham City Schools).
- PATTERSON, JAMES REID; B.S., Davidson; Duke, 1939-41; Assistant in Physics (Duke University).

- PERSONS, WALTER S.; SWIMMING (Duke University).
- RICHARDS, JAMES AUSTIN, JR.; A.B., Oberlin College; Duke, 1939-41; Assistant in Physics (Duke University).
- Skell, Philip Solomon; B.S., College of the City of New York; A.M., Columbia; Duke, 1940-41; Assistant in Chemistry (Duke University).
- SMITH, EDWIN STUDLEY; B.S., Furman; Duke, 1940-41; Assistant in Chemistry (Duke University).
- Tompson, Reade Yates; Sc.B., Brown University; Duke, 1940-41; Assistant in Chemistry (Duke University).

DUKE UNIVERSITY SUMMER SCHOOL

Duke University, located at Durham, North Carolina, includes Trinity College, the Woman's College, the College of Engineering, the Graduate School of Arts and Sciences, the Schools of Religion, Law, Medicine, Nursing, and Forestry, and the Department of Education. The student body is drawn from the entire United States, with a representative group of foreign students. The summer enrollment is smaller than that of the regular year, but with a somewhat larger representation of graduate students.

In 1940 there was a total of 2,936 registrations in Duke University Summer School and affiliated schools. Of these registrations 1,858 students were enrolled in the first term of the Duke University Summer School, and 878 the second term; 26 were enrolled in the Junaluska School of Religion at Lake Junaluska; and 177 were enrolled in the Medical School and the School of Nursing. There were 1,124 graduate students the first term and 585 the second, admitted on the basis of Bachelor's degrees from 278 different colleges and universities. The total enrollment for the summer was drawn from forty states, as well as the District of Columbia, Puerto Rico, Canada, and China. The largest enrollments were from North Carolina, Pennsylvania, West Virginia, South Carolina, Florida, Virginia, Georgia, Ohio, New Jersey, New York, Tennessee, Mississippi, Kentucky, and Maryland in the order named. Public school teachers from thirty-two states were included in the total.

CAMPUS AND BUILDINGS

Duke University is located on two campuses connected by prompt and inexpensive bus service. The Duke Forest is adjacent and easily accessible to the West Campus. Both campuses will be used by the Summer School of 1941. The West Campus will be used for the graduate students, both men and women, both terms, and for undergraduates the last six weeks. This campus, with its Tudor Gothic architecture, has all dormitories, laboratories, classroom buildings, auditorium, administration building, and the buildings of the professional schools conveniently grouped around the quadrangle dominated by the University Chapel. On one corner immediately beyond the Chapel is the General Library, the largest in the Southeast. Opposite the Library is the Union, center of student activities, one of the most complete buildings of its kind to be found in American institutions. In it are housed practically all the facilities needed in the general day-by-day round of student life, including a large social lobby, reading room, information office, alumni and news service headquarters, six dining rooms, reception rooms, headquarters for various student organizations, the government post office, the University store, a complete haberdashery, and a barbershop.

The East Campus, which during the academic year houses the Woman's College, will be used exclusively for undergraduates the first six weeks of Summer School. All undergraduate women will be housed on this campus, all undergraduate classes except in laboratory science (chemistry, geology, physics, and zoology) and accounting will be held there, and books reserved for undergraduate courses will be reserved in the East Campus Library. The dining room and other facilities will be fully available for the use of undergraduate students the first six weeks. Southgate Dormitory, which during the academic year is used by the engineering students, will be reserved for undergraduate men the first six weeks.

CHANGES IN CALENDAR AND REGISTRATION: TWO TERMS

On account of the growth of the first term of Summer School, there will be no middle term for the summer of 1941. Apparently the first-term registration will fill both dormitories and classrooms without making possible any registrations for the middle term.

Since the middle term has been discontinued, first-term classes instead of beginning Wednesday following the first Sunday in June will begin Wednesday, June 11, thereby making it possible for students who register in advance to enter classes as late as Tuesday morning, June 17. Students who enter late, however, are marked absent from classes held prior to their entrance, and the student who has more than four absences cannot receive full credit for the term's work. The second term closes August 30. Since many students have found it exceedingly hard to complete twelve weeks' work in one term of Summer School, students are advised to register for only eleven weeks and take advantage of the early examinations closing August 26. This means that the student who enters the first term of Summer School and continues for five weeks of the last term, completes a full "summer quarter," or an exact one third of the year now required for a Master's degree (see "New Requirements for Master's Degree"). Students who wish to complete nine weeks of work instead of six may do so by planning their courses for the first term so as to find a related course offered the first three weeks of the second term, or by entering a course July 1 that is completed within the last three weeks of the first term and closely related to some course continuing through the second term. There are certain courses offered for three weeks in the departments of English and Education that permit this arrangement.

CALENDAR AND REGISTRATION

The first term of Summer School will open June 10 and close July 21. The second term will open July 22 and close August 30. Students who desire a summer "quarter" of eleven weeks to complete one third of a regular year's work, for example, one third of the work required for a Master's degree, can complete such work in the period from June 10 to August 26. All Mondays except June 30, July 21, and August 4 and 25 are holidays. July 4 will be observed as Independence Day.

For the first term, Tuesday, June 10, is registration day. Any students who have not previously registered by mail should be present at 9:00 A.M. and 2:00 P.M. to submit their credentials for admission, select courses, and make arrangements concerning board and lodging. Students arriving after 5:00 P.M. Tuesday will register the next morning at 8:30.* Regular classes will begin Wednesday morning at 8:00. Students will find schedule posted on the bulletin board prior to registration.

For the second term, Tuesday, July 22, is registration day, and classes will begin Wednesday morning at 8:00.

AVAILABILITY OF ROOMS AT THE UNIVERSITY

Rooms rented from the University are not available until 9:00 A.M. the day of registration. Students arriving prior to that hour are expected to make temporary arrangements at the hotel or elsewhere. The Summer School, however, will be glad to co-operate to help students find desirable accommodations. It is usually possible to find temporary rooms near the campus for about one dollar per person per night. Special problems of this type should be taken up with the Director promptly. Except in rare cases, rooms for the second term will not be available until 2:00 P.M. registration day on account of late examinations scheduled for first-term students, but the Summer School can easily adjust conflicts of this type.

Room assignments are made with the understanding that the student is expected to vacate the room within twenty-four hours after his last examination. If his last examination begins at 8:00 o'clock Monday, he is expected to vacate the room by 8:00 o'clock Tuesday; if his last examination begins at 2:30 o'clock Tuesday, he is expected to vacate his room by 2:30 Wednesday; etc. In cases where the enforcement of this rule works hardships, temporary arrangement can probably be made if the Housing Bureau is notified one week in advance.

ADMISSION

Applicants for admission must have completed a high-school course. As evidence of this, a teacher's certificate of grade as high as North Carolina elementary will be accepted from teachers with two or more years of experience. Certificates and other credentials must be submitted to the Committee on the Summer School by the time of registration. Each student who wishes to enroll for graduate credit should request the proper officer of the university or college he attended to send directly to the Dean of the Graduate School an official transcript of his undergraduate record and of any graduate credits he may have. This transcript should be furnished by May 26 for enrollment in the first summer session and by July 1 for enrollment in the second summer session. An application blank for admission to graduate courses is available upon request for those who contemplate study toward an advanced degree. Under-

^{*} N.B.—Students who register late are regarded as absent from all classes held prior to their registration. Late registration very seriously affects credits that may be obtained.

graduate students should apply to the Director of the Summer School for a special blank to be signed by the dean of the college to which they desire their credits sent, certifying approval of the courses for which application is made. The Summer School reserves the right to reject any application or to cancel any registration without assignment of reason.

CREDITS

Professional credits towards teachers' certificates are granted by the various state boards of education, each in accordance with its own carefully planned rules. Teachers should consult the rules laid down by their State Board of Education before enrolling for certification credit. Any student, however, whose work is of such quality as to deny him credit toward a degree, fails to receive "professional" credit.

College credits are offered as follows: A course of five hours a week for six weeks counts for two semester hours of credit, a course of seven and one half hours a week for six weeks counts for three semester hours of credit, and a course of ten hours a week for six weeks counts for four semester hours of credit in Duke University. No student is allowed to take more than fifteen hours of work a week without the consent of the Director and of the instructor in whose department the student expects to do his major work.* Except in the case of elementary laboratory science, in which eight semester hours may be completed in seven weeks, the University will not accept credit beyond six semester hours earned in one term toward the Bachelor's degree. Graduate students are not under any circumstances permitted to enroll for more than six semester hours in a summer school of six weeks. They forfeit graduate credit by undertaking more than six semester hours of work, even though part of the work may carry undergraduate credit only. A student of senior standing, however, may elect as many as eight semester hours of such elementaryskill work as drawing, public school music, and the like, of courses primarily for Freshmen and Sophomores, and obtain such professional credit as his State Department of Education will allow, not to exceed the maximum eight stated. The North Carolina State Department of Education disapproves of more than seven semester hours in one term of six weeks.

The nature of the credit allowed for each course is indicated by the number of the course. Courses numbered 1-49 are primarily for Freshmen, or Freshmen and Sophomores; courses numbered 50-99 are ordinarily for Sophomores, or Sophomores and Juniors; courses numbered 100-199 are for Juniors and Seniors; courses numbered from 200-299 are for Seniors and graduates; and courses numbered from 300 up are for graduate students only and are of very limited enrollment. Courses numbered from 200 up are usually limited in enrollment to approximately twenty-five students, and during the summer consist almost exclusively of graduate students. Graduate seminars are limited to fifteen students or fewer.

^{*} No student liable to suspension from the University under its rules regarding failure is permitted to enroll in the Summer School.

EXAMINATIONS

The last two days of each term of six weeks are devoted to examina-The University has no provisions for giving examinations in absentia, but students absent from examination for valid reason are permitted a liberal extension of time in which to return to the University

for completion of credit.

The early opening of schools in which many summer school students happen to teach, sometimes necessitates the return home of students before the end of the second term of Summer School. The provision made for such students is as follows: Any student whose record is superior in a given course may with the consent of his instructor and the approval of the Director of the Summer School obtain a special examination not earlier than the fifth day before the regularly scheduled examination. If he takes such examination, the total credit in each course is reduced by one sixth; in other words, the student is interpreted as having completed five weeks of Summer School, and his maximum allowable credit, therefore, is five semester hours.

SCHEDULE OF EXAMINATIONS UNDER THE NEW PLAN FOR THE MASTER OF EDUCATION DEGREE

For the first term, Master of Education examinations will be held as follows:

Tuesday, June 10 (registration day), 8 to 11 A.M. and 2 to 5 P.M., Room 210, School of Religion Building, examinations upon the students' minors. (All students expecting to stand this examination should file application before May 26, in order that the departments may be notified

to prepare examinations.)

Tuesday, July 22 (registration day for second term), 8 A.M. to 12 M., Room 210, School of Religion Building, examination upon the professional major. (Only students who have completed their professional major will

be permitted to stand examination at this time, and the same comment applies to the examination given toward the end of the second term.)

Wednesday, July 23, 8 A.M. to 10:30 A.M., 11 A.M. to 12:50 P.M., and 2:15 to 5:45 P.M., examinations on the required reading courses. (Only those who have completed their required reading courses by the end of the first term of Summer School will be eligible for this examination.)

Examinations for the second term of Summer School will be given the same hours and place as follows:

Thursday, July 24, examinations upon the students' minors. Students intending to take these examinations should apply to the Director of the Summer School before July 19.
Wednesday, August 27, examination upon the professional major.

Thursday, August 28, examination upon the required reading courses for those completing their reading the second term.

Except for the examinations on the minors, where longer advance notice is required, it will be sufficient to notify the Director three days before the date of the examination. No fee is required at the time that the examination is taken, but at the time of graduation the student pays one flat examination fee of \$25.00, equivalent to the thesis fee required of other Master's candidates.

NEW REQUIREMENTS FOR MASTER'S DEGREES

The Southern University Conference, consisting of leading educational institutions of the South interested in graduate work, has agreed that Master's degrees in summer school should represent a full year of residence as the term residence is understood during that academic year, exclusive of holidays and other interruptions of the academic year. This means a minimum period of thirty-three weeks and has these effects among others:

- 1. The extended period (of thirty-three weeks instead of thirty) makes it possible to give students preparing to write Master's theses a better opportunity to prepare for their thesis writing. In some departments research courses in which the student may do certain elementary preliminary work on his thesis have already been provided.
- 2. The period of thirty-three weeks conveniently divides into three periods of eleven weeks each, making it possible for the Summer School to begin nearly a week later and give the student a full period of eleven weeks well before the last day of August. For some time it has been hard to work in a full period of twelve weeks without serious inconvenience to many students because of early entrance for the first term or getting away late from the last term. Under the new plan students are advised not to try more than eleven weeks (eleven semester hours of credit) in one summer. However, for those students working under the old rules who wish to obtain twelve weeks credit this summer, a full period of twelve weeks has been provided as announced in this bulletin. It is possible that the twelve-weeks term will within the next year or two be abandoned in favor of the quarter of eleven weeks.
- 3. The extended period makes possible a revision of the Master of Education degree in such a way as to abolish the thesis requirement and substitute work of probably greater value to the student. The requirements of the new Master of Education degree are set forth in the following paragraphs. It will be observed that they are probably more difficult than the old requirements, but the good student will probably have more when he completes them than he would have had under the old requirements including a thesis.

Students who started Master's degrees under regulations enforced prior to 1938 will have the normal time in which to complete their degrees under the old plan. The new requirements are sufficiently different from the old to make it hard for students with more than twelve semester hours of credit under the old plan to transfer to the new without loss. Anyone who transfers will be responsible for a minimum of thirty-three semester hours, or a residence period of thirty-three weeks. (Under "Graduate Instruction," two pages further along in this bulletin, the details of the new requirements are set forth.) The principal changes in the requirements for the Master of Arts degree are the new minimum residence period of thirty-three weeks (five and one half terms of six weeks, or three "quarters" of eleven weeks), the more specific statement of undergraduate prerequisites (see the introductory statements under

each department of instruction that offers a Master's sequence in Summer School), and the requirement in most departments of a pre-thesis research course, in which, however, the student will ordinarily have some opportunity to get a start upon his thesis. This, in effect, gives the student nine weeks of supervision for his thesis at the same time that it clears up the status of some of the research courses.

The changes in the Master of Education requirements are more radical. They not only require a minimum residence period of three "quarters" or five and one half summer terms of six weeks, but they abolish the thesis requirement heretofore made and substitute the following work

with final written examinations upon each part:

(A) Four courses intended to help the student learn to read independently and obtain a basic understanding of education and the school, these courses being conducted on a plane analogous to Honors reading* and described as follows:

Education S300.—The place of educational research, its methods of procedure, evaluation of results, special problems, etc.

Education S304.—The school as an institution—the place of the school

in society, its history, and philosophy.

Education S305.—The nature, function, and organization of the cur-

Education S317.—The psychological principles of education—an advanced study of teaching, learning, and the learner.

- (B) The work of the minor department, including any undergraduate prerequisite the student finds it necessary to study by supervised outside reading. (For example, many teachers of history and social studies have not had undergraduate work in government or economics or sociology, vet they wish to take their minor work in this missing department in order that they may have a better background for their teaching. Under the new plan, the Summer School can encourage this desirable strengthening of preparation in the subject matter by giving reading lists based on the preliminary undergraduate work in order that the student may have the background to go on with the minor of his choice. It would seem that a teacher of American history, for example, can by independent reading and a minimum of supervision obtain the elementary knowledge of American government necessary as a basis for minor work. It is the policy of the Summer School to encourage through the Master of Education degree independent reading as a basis for the minor as well as for the four "core" courses listed above.)
- (C) Carefully defined major work in (a) public school administration, (b) public school supervision, (c) elementary education, or (d) secondary education, as the professional major. (It will be observed that the degree is intended for those who definitely desire their work for professional purposes. The Master of Education degree is, therefore, not offered with a major in educational psychology or history of education. Students in these two fields would be expected to enroll for the Master

^{*} Voluntary class attendance is permitted students enrolling in these courses for reading credit, except that such students are expected to report at least once in three days for discussion.

of Arts degree, whereas students with majors in the other fields mentioned have choice between meeting Master of Education requirements and Master of Arts requirements.)

Students in education, when choosing between the Master of Arts degree with a major in education and the Master of Education degree, should understand that either degree may be completed within a minimum residence of three summer "quarters" of eleven weeks each, or five and a half summer terms of six weeks each; that both degrees are administered by the Graduate School, and only graduate courses are approved for the degrees; and that students who subsequently decide to go on to the Doctor of Philosophy degree may have their credits for either Master's degree evaluated toward the higher degree.

GRADUATE INSTRUCTION IN THE SUMMER SCHOOL

ADMISSION TO GRADUATE COURSES

A student who has received the A.B. or B.S. degree for a four-year undergraduate course may be admitted to take graduate courses in the Graduate School of Arts and Sciences of Duke University, provided his undergraduate record gives positive evidence of ability to undertake graduate study successfully. An average grade of not less than "B" is ordinarily accepted as evidence of such ability. A candidate for admission to graduate courses must instruct the proper official in the college(s) he attended to send directly to the Dean of the Graduate School an official transcript of his undergraduate record. In no case will a transcript presented by the candidate himself be accepted as a basis for admission, nor will a transcript mailed by any institution be returned to the student. An application blank for admission will be provided upon request to the Dean of the Graduate School.

Unless applications and transcripts are submitted to the Dean of the Graduate School by June 1 for enrollment in the first summer session or by July 15 for enrollment in the second summer session, there can be no assurance that action can be taken upon the application before the time of registration. In such a case the student might have to be enrolled as an unclassified student.

A student who has been admitted to graduate courses and who expects to work toward an advanced degree must consult with the Director of Graduate Studies or other designated representative of the department in which he proposes to major before registering for courses. This can be done at the time of registration in summer sessions. The department concerned will determine whether a student is prepared to take any particular course. In all cases the student must make up without credit toward a graduate degree all prerequisites required by the major department of candidates for advanced degrees. If the student meets the requirements for admission to the Graduate School, as explained below, the graduate courses he has taken prior to formal admission will count toward a higher degree, provided that they are in accord with the requirements of the Graduate School for the degree and are acceptable to the major department.

ADVANCED DEGREES

The degrees offered in the Graduate School of Arts and Sciences are Master of Arts (A.M.), Master of Education (M.Ed.), and Doctor of Philosophy (Ph.D.). Most of the departments of the University are now prepared to give a full program of work leading to the degree of Doctor of Philosophy.

ADMISSION TO THE GRADUATE SCHOOL

After twelve semester hours of graduate work, the student may apply for admission to the Graduate School, and thus become a candidate for the Master's

degree. Such admission is dependent upon the fulfillment of two conditions. (1) The student must have made a mark of "G" or "Good" in at least three semester hours of work, with no mark less than "S."* Candidates who cannot meet this condition may at a later time submit their records for re-evaluation, provided that in their subsequent work they shall have made a substantial number of "G's." (2) The student in his undergraduate work must have met substantially the requirements for the A.B. or B.S. degree at Duke University. Any deficiencies of undergraduate work must be satisfied before admission to the Graduate School.

DEGREE OF MASTER OF ARTS

Language Requirements:

Candidates for the degree of Master of Arts are required either to have a reading knowledge of a foreign language, evidenced by examination or by transcript showing the completion of the third college year of the language, or to have a reading knowledge of French and German, evidenced by examination or by transcript showing the completion of second-year college French and college German.

The Summer School regularly offers courses in French and German for those students who wish to prepare to satisfy the requirement in either of these

languages in this way.

Minimum Residence Requirements:

For graduate students who take more than fifteen semester hours for the Master's degree in the Summer School the minimum residence requirement is thirty-three semester hours of graduate credit. Graduate students may not receive more than six semester hours of credit for work taken in one summer session of six weeks. The degree of Master of Arts or Master of Education thus can be earned in six such summer sessions by students who are well prepared for graduate work, or by careful planning of thesis residence in a minimum of five and one half terms. Most students planning to complete a Master's degree within a series of summer schools should plan to spend six terms of six weeks each in residence.

All the work offered for the Master's degree, either in the regular academic year or in summer sessions, must be completed within a period of six years from the date of beginning. Graduate courses begun earlier than six years before the completion of the work for the degree will not count either toward

residence or course credit requirements.

Major and Minor Subjects:

Before selecting his major in a department, a student must have completed a minimum of twelve semester hours of approved preliminary courses in that department and twelve additional semester hours either in that department or in related work. This minimum is imposed by the Graduate School Council. A majority of the departments of instruction require at least eighteen semester hours of undergraduate work, and a few require more. The student therefore should read carefully the special requirements listed by each department in the Graduate or the Summer School Bulletin.

Each candidate for the Master's degree must select a major subject in

Each candidate for the Master's degree must select a major subject in which the minimum requirement is twelve semester hours and the thesis. A candidate must take six semester hours of graduate work in a minor subject approved by the major department, and the remaining nine semester hours in the major or minor subjects or in a department approved by the major department and by the Graduate School Council. All graduate students must take a minimum of six semester hours of work in courses numbered 300 or

^{*}The system of grading used in the Graduate School is as follows: "E," or "Exceptional"; "G," or "Good"; "S," or "Satisfactory." "S" is interpreted in terms of "percentage" grading as being at least ten points above the conventional undergraduate "pass" of 70. "G" is normally interpreted as indicating that the student receiving it has standing within the upper 25 per cent of a department's students considered over a period of years.

above unless excused therefrom by the Dean of the Graduate School on the recommendation of the major department. No undergraduate course may be credited toward the degree of Master of Arts.

Thesis:

In the minimum residence requirement of thirty-three semester hours of graduate credit is included an allowance of six semester hours for a thesis. The title of the thesis required in partial fulfillment of the requirements for the degree of Master of Arts must be approved by the department concerned and filed with the Dean of the Graduate School on or before November 15 of the academic year in which it is expected that the degree will be conferred.

Four bound typewritten copies of each thesis must be submitted to the Dean of the Graduate School in approved form on or before May 15 of the year in which the degree is conferred. The thesis is passed upon and accepted or rejected by an examining committee of three members of the Faculty. Each candidate is required to appear before the committee for an oral examination on the thesis and major field.

CREDIT TOWARD THE MASTER'S DEGREE FOR WORK DONE ELSEWHERE

No credit toward advanced degrees is given for university extension or

correspondence courses.

Not more than six semester hours of credit toward the Master's degree may be given to graduates of Duke University or of other approved colleges or universities for acceptable graduate courses or research work completed elsewhere. Such credit will not shorten the minimum period of full-time resident study required at Duke University.

SUGGESTED PROGRAM OF WORK TOWARD THE MASTER'S DEGREE

A committee of the Graduate School Council has drafted the following recommendations respecting the student's program of work toward the Master's degree:

First term: two courses in the major department, usually from numbers 200 to 299.

Second term: one course in the major department, and one course in the minor department, or two courses in the minor department.

Third term: one course in the major department or one course in the minor department, and a general course in research methods if such a course is offered by the major department. A thesis subject should be tentatively selected and filed with the signed approval of a professor willing to supervise it, and the head of the major department (or the approved representative of the major department in charge of summer school work) before the beginning of the third week of the third term.

Fourth term: one course in the major department or remaining course in the minor department (if for any reason there is a remaining course in the minor). The remaining time of the fourth term should be spent in provisional work upon the thesis under at least preliminary supervision of the major professor. The filing of the title in the Graduate Office should be made permanent.

Fifth term: one course in the major department and half time devoted to the thesis under the active supervision of the major professor.

Sixth term: same as the fifth.

This plan will require eighteen semester hours of work in the major department and six in the minor department, as were required by the former rules, plus a course in research methods in the major department (or substitution elsewhere provided below) and will allow one half of the student's time for three summer terms to be devoted to his thesis work. By approval of the department and of the Dean of the Graduate School, the minor work may be enlarged at the expense of the work in the major department. If

the major department does not offer a generalized course in research methods, some other course numbered 300 or above either in the major or minor department may be substituted with the approval of the Dean of the Graduate School.

DEGREE OF MASTER OF EDUCATION

The degree of Master of Education is granted to teachers, or others engaged in educational service, upon completion of the prescribed program of study. Candidates for the degree must have had two years of practical experience in teaching when the degree is conferred. This experience may be obtained in the two years immediately prior to entering upon candidacy for the degree, or it may be obtained concurrently with the period of study for the degree.

A preliminary requirement for admission to candidacy for this degree is the completion of a minimum of eighteen semester hours of approved undergraduate work in education, including work in educational psychology and in history of education, educational sociology, or school administration. Three hours of general psychology may be counted as contributing toward

these prerequisites.

Beginning in the summer of 1938, all students who are entering Duke Summer School for the first time to work for the Master of Education degree must conform to the new requirements, except that on recommendation of the Department of Education the Dean of the Graduate School may permit a student to submit a thesis carrying six hours of credit for six hours of the generalized readings prescribed and for the comprehensive examinations otherwise laid down. Those students who have already begun their course of study leading to the Master of Education degree will be permitted to transfer to the new plan if their credits indicate such transfer to be feasible and if the transfer has the approval of the Chairman or of the Director of Graduate Studies of the Department of Education. In general, students who have completed more than twelve semester hours of work are strongly advised not to attempt the transfer, because of the serious loss of credit that they would usually suffer. Furthermore, all students contemplating the change should realize that they would be required to spend at least three additional weeks in residence and probably more by reason of the more specific requirements of the new plan. If, after reading the statement below of the new requirements for the Master of Education degree, the student still desires to adapt his program to the new regulations, he should address an inquiry for further information to the Director of the Summer School or the Chairman of the Department of Education. Students under the old plan in all other cases will be required to complete their work for the degree under the regulations in the Summer School Bulletin of 1937.

Candidates for the Master of Education degree must take a minimum of thirty-three semester hours of graduate work in residence at Duke University,

classified as follows:

(1) Twelve semester hours of generalized work in education, as explained below.

(2) Six to twelve hours of minor work.

(3) Nine to fifteen hours of an intradepartmental or "professional" major. The twelve semester hours of generalized work, analogous to Honors reading, will be followed by a comprehensive written examination at the close of the thirty-three weeks. This work will be based upon four courses of three semester hours each, consisting of Education S300, S304, S305, and S317, of which the student must take one and will be permitted to take as many as two in class, although the readings and examination will go beyond class work. For the two or three courses the student does not take in class, he will be allowed free time in his third and subsequent terms of summer school.

For the six to twelve semester hours of minor work, the following suggestions are offered:

(a) For those candidates, whose intradepartmental, or "professional" major is public school administration, six hours in political science, economics, sociology, or other work especially listed as "related courses in other departments for majors in public school administration.'

(b) For those whose professional major is public school supervision, six to nine semester hours in psychology, educational psychology, or a combina-tion of the two, or sociology, or in specifically designated "related courses"

(c) For those whose professional major is secondary education, six to twelve hours in their teaching field(s), with twelve hours strongly recom-

mended.

(d) For those whose professional major is elementary education, six semester hours in psychology, educational psychology, or an approved combination of the two, or in child welfare and development (wholly in sociology, or partly sociology and psychology or educational psychology, if a satisfactory combination can be worked out).

The nine to fifteen semester hours of the professional major may be in the field of public school administration, public school supervision, secondary

education, or elementary education.

At any time after the completion of his minor and his professional major, the student can take the general examinations on these two phases of his program on the days designated for them. Upon the fulfillment of all residence requirements, he will be given a comprehensive written examination upon the twelve hours of generalized readings. Any of these examinations

may be rejected upon the grounds of poor usage of English.

As in the case of the requirements for the Master of Arts degree, all work presented for the degree must be completed by the candidate within a period of six years from the date of beginning. Graduate credits from other approved institutions may be accepted up to a maximum of six semester hours, but such acceptance of credits will not lessen the requirements of study in residence at Duke University.

DEGREE OF DOCTOR OF PHILOSOPHY

A student who plans to enter upon a program of work leading to the degree of Doctor of Philosophy should consult, or enter into correspondence with, the Dean of the Graduate School and the head of the department concerned. He will then be advised as to the possibility of securing necessary instruction and supervision of research in the desired field. Credit for as much as one year of graduate work done in summer school sessions may be given with the approval of the Graduate School and the department in which the student takes his major work. The student should consult the bulletin of the Graduate School for a full statement of requirements for the degree of Doctor of Philosophy.

THESIS WRITING IN SUMMER SCHOOL

Since Duke University grants no Master of Arts degree except upon completion of a satisfactory thesis, every candidate for that degree who expects to complete his work in Summer School should as soon as possible after completing his first term of residence choose a field in which he desires to write a thesis and confer with some instructor offering graduate courses in that field. The following points should be kept clearly in mind when arrangements are made for thesis supervision:

1. The subject of the thesis must be approved by the instructor who undertakes the supervision. The instructor's decision as to whether the topic is suitable, or the student is prepared to develop it, or the instructor prepared to supervise it, is final.

2. A student may enroll for six semester hours of residence credit towards a thesis or for less, in one term of six weeks. If he enrolls for only three

semester hours he may enroll also for a course of three semester hours, but he cannot enroll for a total of more than six semester hours of credit, including residence toward his thesis. Completion of six semester hours of residence toward his thesis does not guarantee the satisfactory completion of the thesis, which must be acceptable to the instructor supervising it and to a committee representing the Council on Graduate Instruction. Students who do not complete their theses the first term they register for supervision have the privilege of registering a second term upon payment of regular dues, but are not required to do so. Since the numbers permitted to enroll in thesis seminars are strictly limited, such students are not permitted to register for a third term of supervision.

3. A student may either enroll in a specifically designated "thesis" course or, if his preparation meets the approval of the instructor in charge, attach himself to some regularly offered course in his field of study and report period-

ically to the instructor offering the course.

A student enrolling for thesis residence credit in regular course pays the same fees as other students during the summer of residence. At the time of graduation he pays the same diploma and commencement fees as other students

and a thesis supervision fee of \$25.00.*

5. Students enrolling for thesis supervision during the Summer School are expected to complete their theses largely during the summer of enrollment or some subsequent summer term. The instructor with whom they enroll is not under obligation to give active supervision during the academic year, although instructors are willing to give a reasonable amount of attention to theses practically completed. Similarly, instructors in Duke University who are not teaching in the Summer School are not expected to undertake the supervision of theses written by summer school students.

6. Students of the academic year who do not complete theses begun prior to Summer School are not accepted for summer school enrollment unless their subjects are in the field of some thesis seminar or other course offered by an instructor who recommends that such students be assigned to his supervision during the summer. Instructors who are employed for full time by the Summer School are specifically requested not to carry over into the summer thesis students whose subjects are not properly a part of work such instructors are

offering in the Summer School.

ROOM AND BOARD

Board and room for a term of six weeks may be secured in the men's dormitories at the rate of \$51.50 for a single room, \$46.50 for each occupant, with two in a room, or \$59.00 if double room, alone, is engaged. On account of extra service the rate in the women's dormitories is one dollar a term higher; that is, \$52.50 for a single room, \$47.50 for each occupant, with two in a room, and \$60.00 for a double room, alone. These rates both for men and women are in each case one dollar lower than the total for board and room counted separately. Many of the rooms on the East Campus are single rooms; on the other hand, on the West Campus there are very few single rooms, most of these on the third floor. All corner rooms are \$1.50 per term higher rent per occupant than other rooms. During the first term, graduate students will live on the West Campus, and undergraduates on the East. During the term when all students will live on the West Campus, separate dormitories will be reserved for graduate students and for undergraduates. Occupants of University

^{*} Students completing the M.Ed. degree by examination pay examination fee of \$25.00, in lieu of the thesis supervision fee.

rooms furnish their own bed linen, blankets, pillows, and towels. All other essentials are supplied by the University.

A section of the new graduate dormitory will be available for Faculty members and married students whose wives accompany them. There are, however, no dormitory accommodations for children. Students or Faculty members who desire to bring children should write the Director for a list of private rooming places where suitable accommodations may be obtained. Occupants of the graduate dormitory furnish their own bed linen and other essentials on the same basis as other students.

The rules and regulations in all dormitories are substantially the same as those in the regular academic year; but students are strongly advised not to install radios, phonographs, and other noise-making appliances in their rooms. Students desiring such facilities will probably find it desirable to room off the campus, because in the crowded dormitories it is hard to operate facilities of this kind without annoying other occupants. The Housing Bureau, however, has worked out a plan for issuing permits to install radios on payment of a permit charge of fifty cents with the understanding that the permit is cancelled and the radio stored if there is complaint from other occupants of the dormitory. Without the regular permit no radios or similar machines are allowable in any dormitory. The Housing Bureau, however, will be glad to co-operate with students in suggesting rooms off the campus where the necessary enforcement of this rule seems to work hardship.

All occupants of University dormitories are advised to board in the regular dining room of the Union, where at meal time there is the opportunity to meet with fellow students, and where, because board is furnished at cost, the greater number of students guarantees better board for all. The service is cafeteria plate-service. Men who live in the dormitories but desire to board elsewhere than in the regular dining room will pay room-rent at the rate of \$17.50 for a single room, \$12.50 for each occupant, with two in a room, or \$25.00 for a double room, alone; and women at the respective rates of \$18.50, \$13.50, and \$26.00. Corner rooms are \$1.50 per term higher per occupant than other rooms. Married students and their wives will pay at the rate of \$30.00 per room. Students who room off the campus but desire board in the Union may obtain it for thirty-five cents a meal, or \$35.00 for the six weeks. Students who present their receipted room reservations at the time of purchasing meal-tickets for the term are allowed a discount of one dollar from the \$35.00 rate for their meal-tickets, as stated above, this accounting for the combination room-and-board-rate quoted above. Since the sole purpose of this discount is to encourage a larger volume of business in the regular dining room and thereby to obtain the best possible board for the large majority of students who take their meals there, it is not effective in the Union Coffee Shop, where the more expensive a la carte service may be obtained by those who prefer it.

FEES

Teachers in active full-time service in schools and colleges are exempt from tuition fees for as many as four terms of six weeks in a period of six years. After their fourth term they pay regular tuition charges. All other students are charged a tuition fee of \$8.00 for each college-credit hour, or \$4.00 for each semester hour, maximum tuition being \$24.00 for six weeks, or \$30.00 for courses running seven weeks. All students, teachers included, pay a registration fee of \$18.50 per term. Students in the sciences pay the laboratory fees required in regular term, and students completing degrees pay the regular commencement charges at the time of receiving their degrees, besides the thesis supervision or M.Ed. examination fee of \$25.00 required of persons completing Master's degrees.

Major expenses are estimated as follows for each term:

Registration\$ Room-rent and board Recreation ticket	47.50
Total major expenses to teachers\$	67.00

In the men's dormitories, as has been stated, the charge for rooms is one dollar less, making the total major expenses for occupants \$66.00. To these totals should be added the tuition fee of \$24.00 charged students other than teachers in the public schools and also charged teachers who have already received four terms exemption, about \$7.00 for books, and probably \$3.00 for miscellaneous expenditures. All claims for exemption from tuition should be filed at the time of registration.

RESERVATION IN ADVANCE

Classes are of limited enrollment. All applications for registration in classes, as well as applications for rooms, are filed in the order in which they are received. Each application for a reservation of courses should be accompanied by a check for \$5.00 in part payment of the registration fee unless room-rent is enclosed. This payment is not a room reservation. No specific rooms are assigned except upon receipt of full room-rent. Because the rapid growth of the Summer School makes it uncertain that late applicants will find room on the campus, students are urged to reserve specific rooms in advance. They may reserve specific rooms by paying, at the time the reservation is made, the regular charge for the room reserved, usually \$17.50 (or \$18.50) for a single room, \$12.50 (or \$13.50) for a room with a roommate, \$25.00 (or \$26.00) for a double room alone. or \$30.00 for room in the section reserved for married students. Specific room reservation for the first term may be made at any time. Since the total registration for the first term affects the decision as to which buildings are to be used for the second term, specific reservations for second term should not be requested before July 10. Students who pay their room-rent in advance are allowed until May 26 to select a roommate. All such roommates, however, must pay their room charges before June 1 in order to hold this reservation. Adjustments may be made as to roommates within the first three days of the term. No room may be reserved by more than two students, but adjoining rooms may be reserved by groups who desire to be together. Students who enroll for the first

term have priority in reserving their first-term rooms for the last term. The University reserves the right in the interest of the Summer School and the other students to cancel any reservation of courses or room without assignment of reason. Any student making deposit for reservation or room-rent is entitled to withdraw with full refund at any time within five days prior to registration without assignment of reason.

During the first term all undergraduate classes, except those in accounting, chemistry, forestry, geology, physics, and zoology will meet on the East Campus; all other work will be offered on the West Campus. During the second term, all classes will meet on the West Campus. Each campus has its complete equipment immediately available—classrooms, library, dining rooms, health department and recreational facilities, bus service to the other campus and to town, etc. Since the two campuses are about a mile apart, students are advised to live on the campus where their classes will be held. For women students of undergraduate college age rooms will be reserved only on the East Campus during the first term.

APPOINTMENTS BUREAU

A Teachers' Appointments Bureau is maintained for the benefit of teachers desiring a change of position. There is no charge for this service.

RELIGIOUS SERVICES

University religious services are held each Sunday morning at 11:00 o'clock, to which all students are invited. In the summer of 1940 the student choir, a voluntary organization, enrolled over two hundred students. A series of organ recitals are also given Sunday afternoon and at other times each week in the University Chapel.

RECREATION AND ENTERTAINMENT

At the time of registration every student receives a season ticket to all recreation and lecture programs. In addition to admission to special lectures, and other features of entertainment provided, this ticket entitles the student to use of the tennis courts and of the swimming pools, which are open an hour and a half daily for various groups of students; also to social events limited to students. There are also an evening play-hour sponsored by the Department of Physical Education and a Sunday evening "sing" that has grown to be a tradition among the quadrangle students.

Mr. Anton Brees, Carillonneur of the Mountain Lake Singing Tower, Lake Wales, Florida, will give recitals on the fifty-bell carillon of the University at stated times twice a week during the Summer School.

The national honor society in education, Kappa Delta Pi, maintains a weekly forum to which all students are invited.

State clubs, organized by students from the states best represented in the student body, chiefly the students from West Virginia, Pennsylvania, and Ohio southward to Florida and Mississippi, co-operate with the Social Director to provide wholesome recreational life for the students. The first Thursday evening of each term is set aside for the opening general assemblies of students and Faculty.

CONFERENCE ON THE STATUS OF TEACHING AS A PROFESSION

In co-operation with the National Education Association and the North Carolina Education Association a conference on the status of education as a profession is planned for Tuesday evening, June 24, and the day following.

CONFERENCES FOR WORKERS IN GUIDANCE, JUNE 12 TO JULY 19

In connection with the courses on Guidance offered in the graduate department of education, it is planned to have all-day programs of lectures, forums, and conferences, for social workers, teachers, and school officials interested in the programs of educational and vocational guidance. Students in the Summer School and others are invited to attend these sessions. For complete program, write the Director of the Summer School after May 1. The conferences will be scheduled for one or two days weekly.

INSTITUTE FOR TEACHERS OF SECONDARY MATHEMATICS JUNE 17-20

In co-operation with the Mathematics Section of the North Carolina Education Association the Summer School will conduct a four-day institute for teachers of high-school mathematics. There will be an afternoon and evening session each day during the institute. A feature of the institute will be the exhibits of models, instruments, drawings, textbooks old and new, library materials, and the like. The emphasis of the institute will be on practical aids for high-school teachers and students of mathematics. Following each lecture there will be open discussion. Tuesday, June 17, will be registration day. There will be no registration fee. Those who desire can get room and board in the University for the four days at \$8.00 with two in a room, or \$10.00 for a single room. A complete program will be sent upon request after May 1. For further information write the Director of the Summer School, Duke University, or Professor W. W. Rankin, Director of the Institute, Duke University.

FIFTH ANNUAL SCHOOL FOR WORKERS IN CHILDREN'S HOMES AND ORPHANAGES, JULY 28 TO AUGUST 16

In co-operation with the Tri-State Conference of Orphanage Workers the Summer School will operate a three-weeks school for the in-service training of teachers and personnel employees in the children's homes and orphanages of Georgia and the Carolinas. Within the past four years ninety-four workers in twenty-four different orphanages have completed

one or more units dealing with the mental hygiene of the school child, child welfare, and the psychological development of the child. Twelve workers have received the three-unit diploma. The program for 1941 will consist of a regular ninety-minute period daily in social pathology, a sixty-minute lecture daily followed by open forum discussions on problems connected with child development, social service, and institutional administration, and evening lectures of broad cultural interest. Monday, July 28, will be registration day, and lectures will begin that evening. Monday, August 4, will be a holiday in order to give the students attending opportunity to visit near-by points of interest in their work. These students will receive the same consideration as teachers in public schools and will be exempt from tuition charges. Their total expense for board, room, and fees, with two persons to a room, will be \$32.50 for the three weeks, or \$38.50 if room alone is engaged. A certicate of attendance and of work completed will be given at the close of the school, but it has not been arranged to offer credit toward college degrees for the work. For further information, address the Director of the Summer School, Duke University, or Dr. Theo. A. Quattlebaum, President, Tri-State Conference of Orphanage Workers, John K. Crosswell Home, Sumter, South Carolina.

COACHING SCHOOL

The Athletic Department of the University conducts a one-week coaching school for high-school coaches, July 21 to July 26. Registration for the school is \$10.00. The courses will be offered by Coach Wallace Wade and his staff and will include football, basketball, and track.

AFFILIATED SUMMER SCHOOL

The Junaluska School of Religion, Lake Junaluska, North Carolina, is an independent school affiliated with Duke University. It will offer courses in religion toward the A.B. and B.D. degrees. Its single term will begin July 21 and close August 30. (For further information address Dr. Paul N. Garber, Director, Duke University, Durham, N. C., and see pages 56-57, this bulletin.)

SUMMER SCHOOL OPPORTUNITIES FOR GRADUATE STUDENTS

A majority of the students in the Summer School are graduates of standard colleges, most of them supervisory officials and teachers in the public schools. Departments of instruction, therefore, offering courses related to the common secondary-school curriculum have built up regular sequences of graduate work continuing through a series of summer schools in which graduate students may enroll with reasonable assurance that sufficient work will be offered to enable a properly qualified student to complete Master's requirements easily within the period permitted by the University. Departments in which sufficient demand for graduate courses has developed to enable students to complete Master's degrees are Botany,

Economics, Education, English, French, History, Mathematics, Physics, Political Science, Psychology, Religion, Sociology, Spanish, and Zoology. It is intended to add complete sequences in other departments as rapidly as demand justifies. The Department of Religion offers work toward the B.D. degree, and students in that department can also obtain B.D. work in the affiliated summer school at Lake Junaluska. In the Department of Education complete sequences of work for the Master's degree are offered in the divisions of public school administration, public school supervision, secondary education, educational psychology, and elementary school education. This variety of offerings should cause students in this department to be especially careful to select a unified course.

In all departments a graduate student must select his minor with the approval of his major department. Under "Courses of Instruction," pages 31-60, this bulletin, specific regulations and suggestions of departments are given. It is important for all degree candidates to choose their courses according to some unified plan. Mere accumulation of more or less unrelated credits in various divisions of a department with a minor in some department only remotely related to the student's major work will not be accepted as meeting requirements for a graduate degree. Students are advised to choose their first term's work along the line of their major interest and then each succeeding term exercise increasing care in advising with their major professor and the Dean of the Graduate School as to properly related work.

UNDERGRADUATE TEACHERS WORKING TOWARD DEGREES

Undergraduate teachers planning to register for Bachelor's degrees from Duke University should correspond with Dr. Walter K. Greene, Dean of Undergraduate Instruction, and bear in mind the following elementary minimum requirements for all groups of studies leading to the A.B. degree: English, six semester hours; natural science, eight; economics, history, or political science, six; one foreign language completed through the third college year, twelve or eighteen semester hours; and religion, six.

COURSES OF INSTRUCTION

EXPLANATIONS AND ABBREVIATIONS

Classes meet daily five times per week for six weeks unless otherwise indicated. Classes that meet for sixty-minute periods are indicated as carrying two semester hours of credit. Classes meeting eighty-five-minute periods daily count for three semester hours except where credits are stated otherwise. Courses are arranged alphabetically by departments. The course numbers are the same numbers used in describing courses in the regular term, with the letter "S" preceding; for example, Chemistry S1 would correspond to Chemistry 1 of the regular term.

The following abbreviations occur: the numeral I means that the course comes the first sixty-minute period daily, beginning at 8:25; I, the second sixty-minute period, beginning at 9:40; I, the third sixty-minute period, beginning at 11:20. I means that the course comes the first eighty-five minutes daily, beginning at 8:00; I means that the course comes at the eighty-five-minute period, beginning at 9:40; I means that the course comes at the eighty-five-minute period beginning at 11:20; I means that the course comes at the eighty-five-minute period beginning at 2:15; I means that the course is offered the first term; II, that it is offered the second term, beginning July 22; I, II, that the course is offered either term. I means that the course is offered on East Campus; I on West Campus. Unless stated to the contrary all classes are scheduled for the West Campus; except that for the first six weeks undergraduate classes, those numbered below 200, will be scheduled for the East Campus unless statement is made to the contrary. For complete schedule of registration.

Periods 1, 2, and 3 do not conflict; and periods A, B, C, and D do not conflict; but period A conflicts with 1, B with 2, and C with 3. Terms I and II do not conflict.

N.B.—Different State Departments of Education grant professional credit for various courses in accordance with their own carefully defined rules. Every student should inquire carefully at or before registration as to what professional credit is allowed for each course in his state.

THESIS COURSES FOR MASTER'S DEGREE CANDIDATES

It is important for every candidate for a Master of Arts degree to plan for his thesis as soon as possible after he completes his first summer school. (See suggestions for planning theses, pages 23-24, this bulletin.) Special attention is called to Education S300, S300X, S322, S334X, Chemistry S275X, English S304, S307, S308, S319, S329, S332, History S308, S315, S317, S333, S343, Mathematics S389X, S390X, Physics S353X, Political Science S310, Religion S398, Sociology S340, Spanish S374, and Zoology S353. A properly qualified student, however, may with the approval of the instructor and the head of his department attach himself to any graduate course for thesis supervision.

Note 1. Unless stated to the contrary, all classes are scheduled for the West Campus; except that for the first six weeks undergraduate classes, those numbered below 200, unless specifically indicated otherwise, will be scheduled on the East Campus. For complete schedule of rooms and classes students should consult official bulletin boards at time of registration.

Note 2. Unless a different limitation is stated, all courses numbered 200 or above are limited in enrollment to twenty-five students, those numbered 300 or above are limited to fifteen, and thesis seminars to ten. In exceptional cases by the consent of the instructor, the Graduate School may extend those limitations.

BIOLOGY

See courses listed under Botany and Zoology.

BOTANY

For admission to candidacy for the Master's degree in Botany, students must have completed a minimum of eighteen semester hours of biological science, including six semester hours of botany in courses numbered above one hundred. Students, who have not yet had the minimum eighteen hours, however, may enter higher courses by permission of the instructor, if he is convinced that they can carry the work for undergraduate credit, and may count such work toward the eighteen hours necessary for candidacy.

- S202. Genetics.—The principles of heredity, their cytological basis, and their bearing on other fields of biology. Laboratory work involves experimental breeding of the fruit fly and the interpretation of data from the breeding of plants. Prerequisite: one year of botany or zoology, or equivalent, and college algebra. A and B, I. 3 s.h. (Laboratory fee, \$2.50.) MR. Perry
- S203. Plant Cytology.—A study of the structure and organization of plant cells in relation to growth, reproduction, and especially heredity. Laboratory work will consist of study and interpretation of living and fixed cells and practice in the preparation of temporary and permanent slides, especially the smear technique. Prerequisite: one year of botany. 9:00-12:00, II. 3 s.h. (Laboratory fee, \$5.00.)
- S210. Mosses and Ferns.—The structure and classification of mosses, liverworts, and ferns, and field acquaintance with the common forms. Laboratory will consist of field work and practice in identification. Students may, if they desire, select any one of the three groups for intensive study. 8:00 a.m.; 2:00-5:00 p.m., II. 3 s.h. (Laboratory fee, \$2.50.)

Mr. L. E. Anderson

- S252. Plant Physiology.—The principal physiological processes of plants, including water relations, photosynthesis, digestion, translocation, respiration, and the relation of these processes to plant growth. 2:00-5:00, I. 3 s.h. (Laboratory fce, \$5.00.)

 MR. KRAMER
- S359. Research in Botany.—Individual investigation in the various fields of botany. Credit to be arranged. I, II.

The following courses are planned at the Marine Laboratory in Beaufort, North Carolina:

S211. Structure and Classification of Algae.—I. 6 s.h.

Mr. Blomquist and Assistants

S225. Special Problems.—I.

Mr. Blomquist

S355. Biological Seminar.—I, II. 1 s.h. each term.

Mr. Blomquist, Mr. Bookhout, Mr. Pearse

S359. Research: Taxonomy, Morphology.—I.

Mr. Blomquist

For particulars as to expense, etc., write the Director of the Summer School or Dr. H. L. Blomquist, Chairman, Department of Botany, Duke University.

CHEMISTRY

S1. General Inorganic Chemistry.—Lectures, recitations, and laboratory work on the elementary principles of chemistry and on the occurrence, preparation, properties, and uses of the elements and their compounds. It is desirable, though not required, that students taking this course shall have taken elementary physics either in high school or in college. Recitation daily, 1: lecture daily, 11:30; laboratory hours to be arranged, I (June 11 to July 3). 4 s.h. (w) (Laboratory fee, \$7.00.)

MR. R. N. WILSON AND MR. AYRES

S2. General Inorganic Chemistry.—Lectures, recitations, and laboratory work on the elementary principles of chemistry and on the occurrence, preparation, properties, and uses of the elements and their compounds. Prerequisite: Chemistry S1. Recitation daily, 1; lecture daily, 11:30; laboratory hours to be arranged, I (July 5 to July 21). 4 s.h. (w) (Laboratory fee, \$7.00.)

Mr. R. N. WILSON AND Mr. AYRES

- S61. Qualitative Analysis.—A study of the reactions of acids, bases, and salts in solution as applied to the qualitative analysis of mixtures of inorganic compounds of the more familiar elements. Lecture or recitation daily, 9:00-10:30; laboratory daily, 11:00-12:30 and 2:00-5:00, I (June 11 to July 8). 4 s.h. (w) (Laboratory fee, \$7.00.) MB. HOBBS AND MR. DIBELER
- S70. Quantitative Analysis.—A number of representative quantitative analyses are carried out in the laboratory, and the underlying theory is taken up in the lectures. Lecture or recitation daily, B; laboratory daily, C and 2:00-5:00, I, II (July 9 to August 5). 4 s.h. (w) (Laboratory fee, \$7.00.) MR. HILL AND MR. E. S. SMITH
- S151. Organic Chemistry.—An introduction to the study of carbon compounds. Compounds of aliphatic series form the basis of lectures, discussions, and laboratory experiments. Prerequisites: courses S61 and S70, except by permission of the instructor. Recitation, 8:00; lecture, 2:00 daily; laboratory, 9:00-12:00 daily except Saturday, I (June 11 to July 8). 4 s.h. (w) (Lab-MR. BRADSHER AND MR. ABRAMOVITCH oratory fee, \$8.50.)
- S152. Organic Chemistry.—A study is made of compounds of the aromatic series, and of carbohydrates and proteins. Prerequisite: course S151. Lectures, 8:30; recitation, 11:00 daily; laboratory, 2:00-5:00 daily except Saturday, I, II (July 8 to August 5). 4 s.h. (w) (Laboratory fec, \$8.50.) MISS BROWN AND MR. TOMPSON
- S261. Physical Chemistry.—Fundamentals of general theoretical chemistry illustrated by selected laboratory experiments. Prerequisites: Chemistry S70, S151-152, Physics S1-S2 or equivalent, and Mathematics 7-8 or equivalent. Calculus is desirable but is not required. In exceptional cases, and with the permission of the department, graduate students may offer other advanced science courses in place of some of these prerequisites. Recitations daily, 1, 3; laboratory daily, 2:00-5:00, I (first three weeks). 3 s.h. (Laboratory fee, \$7.00.)

 MR. SAYLOR AND MR. LINSCHITZ
- S262. Physical Chemistry.—Continuation of S261. Recitations daily, 1, 3; laboratory daily, 2:00-5:00, I (second three weeks). 3 s.h. (Laboratory fee, MR. SAYLOR AND MR. LINSCHITZ
- S275X. Thesis Research.—Research in the fields of physical or organic chemistry. Open to those students whose research programs for the A.M. or Ph.D. degrees have been approved by the department and by one of the instructors in charge of the course. Schedule to be arranged (first eight weeks), I. II. 2 to 8 s.h. (Not more than one semester hour of credit per week fulltime schedule, or one semester hour each two weeks for half-time schedule.)

 Mr. Bigelow, Mr. Hill, and Mr. Hobbs
- (In lieu of regular fees in this course, students enrolling for four semester hours or less pay simple registration of \$18.50; all others pay special registration fee of \$25.00. Laboratory fees are arranged with the instructor according to materials used or destroyed.)
- Note.—S275X, as a course to give instruction in methods used in the investigation of original problems, is open to graduate students and in exceptional cases to undergraduate Seniors who have had courses 70 and 151-152. Students other than thesis students, however, must not only have the approval of the instructor but also pay regular registration, tuition, and laboratory fees.

ECONOMICS

For admission to candidacy for the Master of Arts degree in Economics, the student must meet the general requirements for admission to the Graduate School and must have had twelve semester hours in economics, including Principles of Economics. Twelve additional semester hours must be offered

in political science, sociology, or history.

Every candidate for a Master's degree must elect six semester hours of graduate work in Economic Theory. The other twelve hours in economics should be elected as follows: six hours in the field in which he writes his Master's thesis and three hours in each of the two other fields. For purposes of concentration, the fields in addition to Economic Theory shall be Finance, Economic History, History of Economic Thought, and Social Economics. The minor of six semester hours must be taken in political science, sociology, or history or in some other department approved by the major. sociology, or history, or in some other department approved by the major department.

S51. Principles of Economics.—A short course in the essential principles of economic science. (This course will not count as part of the minimum economics requirements for graduation until the equivalent of S52 has been completed. It will, however, count as elective credit.) B, I. 3 s.h.

Mr. EITEMAN

- S52. Principles of Economics.—A continuation of Economics S51, with emphasis on economic problems. (This course will not count as part of the minimum economic requirements for graduation until the equivalent of S51 has been completed. It will, however, count as elective credit.) B, II. 3 s.h. Mr. LANDON
- S57-S58. Principles of Accounting.—Elementary principles of single proprietorship, partnership, and corporation accounting. Period C will be used as a laboratory period. A, B, C, I. 6 s.h. (w)

MR. BLACK (first three weeks) Mr. Keech (second three weeks)

- S115. Economic Geography: Teachers' Course.—A study of the interrelation of human activities and environmental elements. The discussion embraces location, maps and their interpretation, the major climatic regions, seasonal influences, weather, lands and their uses, soils, and minerals, bodies of water, plants, animals, and the works of man, as environmental factors. A, I. 3 s.h.
- Note: Conservation of Natural Resources.—Teachers especially desiring to take courses dealing with the conservation of natural resources are advised to elect S115, or S116 below. Teachers with good background in geography should elect S116 if they can take only one of the two.
- S116. Economic Geography and Industrial Organization.—A study of the economic resources and industries of the world: a general appraisal of the natural and the cultural environment; agricultural and manufacturing industries and their location; the conservation of natural resources; world aspects of resource ownership and utilization. C, I, II. 3 s.h.

Mr. Lemert (first term) Mr. Landon (second term)

S171-S172. Advanced Accounting.—Advanced accounting theory and practice applied to the managerial problems of valuation and operation in corporations, consolidations, mergers, and liquidations. Open to students who have completed Accounting S57-S58. Period C will be a laboratory period. A, B, Mr. SHIELDS C, I. 6 s.h. (w)

- S204. Money, Banking, and Credit.—An examination of monetary and banking problems—the gold standard, central bank policy, inflation and deflation, attempts to control prices and the business cycle, and international exchange. Developments since 1914 are studied particularly. (This onesemester course will satisfy the money and banking requirement in the group of courses leading to the Bachelor's degree in Business Administration.) B, I. 3 s.h.

 MR. Welfilms
- S211. Development of Economic Thought.—This course traces the development of economic theories from their origin to contemporary times. Although the doctrines of the churchmen, the physiocrats, and the mercantilists are included, the greater emphasis will be placed on later writers, such as Smith, Ricardo, Malthus, Mill, the socialists, the nationalists, the Austrians, Marshall, Clark, and others. A. I. 3 s.h.

 MR. EITEMAN
- S218. Population, Resources, and Standards of Living.—A critical survey of the economic laws of returns and pre- and post-Malthusian population theory; consideration of the relation between natural increase and the laws of economic distribution and of the effects of changes in the rate of natural increase upon various classes of industry and upon unemployment; examination of the factors which govern population growth and of current population trends; analysis of international economic and political problems which are founded upon the population pressure; consideration of the economic and the biological aspects of differential birth rates. B, I. 3 s.h. Mr. Spengler
- S231. The Economic History of Modern Europe.—A study of the economic development of Europe since the sixteenth century, treating such topics as the guilds, mercantilism, money, banking, crises, the commercial revolution, and the industrial revolution. The rise of modern capitalism and the historical backgrounds of present economic problems will be emphasized. *A, II.* 3 s.h.

 MR. R. S. SMITH
- S232. The Economic History of the United States.—A study of the agricultural, industrial, commercial, and financial progress of the United States from Colonial times to the present day. Special attention will be devoted to mass production, business cycles, great fortunes, and the relationships between government and business. *B, II.* 3 s.h. Mr. R. S. Smith
- S236. Public Finance.—This course deals with public expenditures, public revenues, public debts, and financial administration. C, I. 3 s.h.

 MR. Welfling
- S260. Social Insurance.—A consideration of the economic and social problems involved in workmen's compensation laws, unemployment insurance, old-age pensions, and health insurance for workers. Particular attention will be given to the present federal and state social security legislation. A, I. 3 s.h.

 MR, DEVYVER

S318X. Seminar in Economics.—Thesis credit only. C, I. 3 s.h.

Mr. Spengler

EDUCATION

For admission to candidacy for the Master of Arts (A.M.) degree with major in Education, or for the Master of Education (M.Ed.) degree, students must, in addition to meeting the general requirements for admission to the Graduate School, meet the following specific requirements: 1. Eighteen semester hours of acceptable prior work in Education; 2. Twelve semester hours acceptable prior work in a minor field (Exceptions: if Psychology, Sociology, Economics, or Political Science is offered for the minor, six semester hours of work completed after entering the junior year in college will be accepted).

Graduate courses in the Department are grouped under the following subdivisions: Public School Administration, Public School Supervision, Secondary Education, Elementary School Education, and Educational Psychology. Every Education, Elementary School Education, and Educational Psychology. Every candidate for the Master of Arts degree in the Department should elect at least twelve semester hours in the one of these fields in which he intends to write his thesis and the remainder of his work, including the six semester hours in his minor, with the approval of the proper division adviser. Dr. Proctor is adviser to students in School Administration; Dr. Proctor, Dr. Carr, and Dr. Scates advise majors in Supervision; Dr. Carr is adviser in Elementary Education; Professor Childs advises in Secondary Education; and Dr. Brownell. Dr. Scates, and Dr. Easley advise in Educational Psychology. Dr. Brownell, Dr. Scates, and Dr. Easley advise in Educational Psychology. Candidates for the M.Ed. degree under the new requirements should read with special care the regulations of the Graduate School as set forth on pages 18-19 and 22-23, this bulletin.

PUBLIC SCHOOL ADMINISTRATION (GRADUATE COURSES)

(Master's candidates in this division elect their minor work in Political Science, Economics, or Sociology. Candidates for the Master of Education under the new plan must take fifteen semester hours of work from the courses specifically listed under this division.)

- S203. Principles of School Administration.—Prerequisite: six semester hours of courses in classroom management and educational psychology. This course is recommended for all students beginning a major in school administration. B, I. 3 s.h. Mr. Overn
- S213. Problems of the Organization and Administration of the Elementary School.—A study of the work of the elementary school principal. A, C, II (first three weeks). 3 s.h.

 MR. HILLEGAS
- S224A. Current Problems in Public Education as Revealed through School Surveys: Elementary School Section .- A study of recent developments in public education as revealed through school surveys and resulting from the survey movement. Recommended for elementary school teachers, principals, and school administrators. A, I. 3 s.h. MR. GAMBLE
- S224B. Current Problems in Public Education as Revealed through School Surveys: Secondary School Section.—A special section of S224 recommended for high-school teachers, principals, and school administrators. C, I. 3 s.h. Mr. Gamble
- S234. Secondary School Organization and Administration.—A study of the outstanding problems of secondary school organization and administration other than the problems of gradation and classification of pupils. (For these two problems, see course \$233 listed under Supervision.) For first-term students, Section 1 recommended for principals of high schools, and teachers of five or more years' experience; Section 2, recommended for teachers of less than five years' experience. Section 1, C, I, II; Section 2, B, I. 3 s.h.

 MR. J. M. GWYNN AND MR. HOWARD (first term)

Mr. Goldthorpe (second term)

- S253. Legal Phases of School Administration.—A study of judicial decisions and the development of outstanding features of statute law controlling school administration. A, I. 3 s.h. Mr. Punké
- S323. Public School Finance.—A study of educational costs, sources of revenue for the support of public education, collection of revenue, basis of distribution, and accounting for funds spent. A, II. 3 s.h. Mr. Goldthorpe

- S333X. Thesis Seminar: Research in School Administration.—For thesis students and others by permission. *Credit to be arranged*. D, I. 3 s.h.

 MR. OVERN
- S343. State and County School Administration.—A study of the state and county organization of public schools, emphasizing underlying principles. (Enrollment in this course is limited to students who have already had at least six semester hours in public school administration. Students who are expecting to write theses the summer of 1941 in the field of public school administration will be given preference in enrollment.) A, I. 3 s.h. Mr. Goldthorpe
- S353. Economic and Social Aspects of School Administration.—A consideration of the aspects, problems, and trends of economic life, social organization, and governmental agencies in their relationships to educational administration policy; the responsibilities and opportunities of education in present-day economic and social conditions. Prerequisite: six semester hours in school administration. *C, I.* 3 s.h.

 Mr. Goldthorpe
- S353A. Education as Public Policy.—A treatment of the problems listed in S353 with emphasis upon education in relationship to public policy. (Not open for enrollment to students who have had S353.) C, II. 3 s.h.

Mr. Arrowood

- S363. City School Organization and Administration.—Problems confronting the administrative officer in local schools, such as relations of superintendent with board and public, organization of schools, development of curricula, selection and promotion of teachers, etc. B, I. 3 s.h. Mr. Proctor
- S373. Business Problems of School Administration.—Basic principles underlying the business administration of public schools; and the solution of practical problems, etc. D, I. 3 s.h.

 MR. HOWARD

Other courses accepted, not to exceed a total of nine semester hours, as work in School Administration are the following, when the student has the approval of his major professor: S209, S232, S233 or S233A, S273, S287, S288, S293, S305, listed under the division of Supervision; S208, S258, listed under Educational Psychology; S264 and S304, listed under History of Education; S205, S206, S216, listed under Secondary Education; and S207, S212, S222, listed under Elementary Education. It will be noticed that not all of these courses are offered this summer, but the complete list is published for the benefit of students who have already completed those not offered in 1941.

PUBLIC SCHOOL SUPERVISION (GRADUATE COURSES)

(Master's candidates in this division elect their minor work in Psychology or an approved combination with Educational Psychology, or in Sociology. Master of Education candidates are permitted as many as nine semester hours of work in their minor, but take the remaining twelve or fifteen, if minor is only six hours, from courses specifically described or listed under Supervision.)

- S209. Statistical Methods in Education.—A course intended to familiarize teacher, supervisor, and administrator with the statistical method of treating educational and social data, so as to enable them to interpret and use the results of recent investigation in the science of education. Presented primarily from the point of view of the classroom teacher. B, II. 3 s.h. Mr. ODELL
- S222. The Curriculum and Materials of the Elementary Grades.—A study of curriculum problems in the elementary schools. Section 1, B; Section 2, C, I. 3 s.h.

 MR. HILLMAN
- S224A. Current Problems in Public Education as Revealed through School Surveys: Elementary School Section.—A, I. 3 s.h. Mr. Gamble

See footnote, p. 31, as to limitation of the class enrollment in graduate courses.

- S224B. Current Problems in Public Education as Revealed through School Surveys: Secondary School Section.—C, I. 3 s.h. Mr. Gamble
- S232. Elementary School Supervision.—A survey of supervision as a means of improving instruction and adapting the curriculum to child and community needs. *C, II.* 3 s.h. Mr. Overn
- S233. Administrative Pupil Accounting.—An advanced study of gradation and classification of pupils, with incidental attention to the keeping of records and making of reports. The study includes a consideration of individual differences, promotion, acceleration, and retardation of pupils; the various plans for classification and gradation; interpreting the results of tests; and some practice in the computation of statistical measures. (Not open for enrollment to students who have had course S233A.) *C, I.* 3 s.h. Mr. Proctor
- S233A. Pupil Personnel Problems in the Elementary School: Guidance.—The purpose of this course is to aid principals, supervisors, and teachers of elementary school children to gain an appreciation of the role of guidance and personnel work in a modern educational program as well as a knowledge of procedure and technique. Emphasis is placed upon the educational significance of the child's development, why children behave as they do, ways of meeting children's needs through school experiences, the function of the teacher in guidance, and the problem of supervisory officials in training teachers to do this work in the elementary schools. (For elementary principals and principals of union schools.) A, C, I (first three weeks). 3 s.h. MISS STRANG
- S273. Problems of High-School Supervision.—A consideration of such problems as aims and purposes of high-school supervision, elements of an effective supervisory program of supervision for city and rural schools, the administration of supervision. Section 1, B; Section 2, C, I. 3 s.h.

 MR. HIGHSMITH
- S287. Problems of Mentally and Educationally Retarded Children.—The causes, types, and degrees of mental retardation; psychological theories of mental deficiency; the education of slow learners in regular and special classes; the organization, objectives, curriculum, and teacher of the special class; the social and eugenical bearings of mental deficiency. The educational problems receive major consideration. A, B, I (second three weeks); A, B, II (first three weeks). 3 s.h.

 MR. WALLIN
- S288. Problems of Mental Hygiene and Education.—The problems, objectives, scope, factors, and techniques of mental hygiene, particularly with reference to its educational and social implications; the prevention of hampering personality difficulties and wholesome personality development; types of adjustment difficulties in different types of children, especially in the normal, and their preventive and remedial treatment; the mental hygiene of teaching and learning. Section 1, A; Section 2, C, I. 3 s.h.

 MR. Holsopple
- S289. Character and Personality Testing.—A study of the tests, scales, and other instruments available for the measurement of those phases of mental activity and development which intelligence tests do not attempt to measure. Prerequisite: course S258 or six semester hours of other work in educational psychology or psychology. A, II. 3 s.h.

 MR. ODELL
- S293. Problems of the Teaching Personnel.—Possibilities for growth of teachers co-operating with administrative officers for (1) the better solution of classroom problems; (2) effective use of plant, records, health guidance agencies; and (3) building sound attitude toward personnel management, tenure, supply and demand of teachers, placement, compensation, community co-operation, professional growth, and retirement. B, II. 3 s.h. MR. OVERN

S305. The Nature, Function, and Reorganization of the Curriculum.— This is one of the reading courses required for the Master of Education degree of students beginning work after June 1, 1938. Selected problems guiding the reading of students will be discussed in class, and reading students are expected to attend the class as suggested by the instructor. Other students may take the course for three semester hours credit, as any other graduate course listed. A, I. 3 s.h.

Other courses accepted, not to exceed a total of six semester hours, as work in School Supervision are the following, when the student has the approval of his major professor: S234, S343, S363, listed under the division of Administration; S300, S208, S218, S258, S317, listed under Educational Psychology; S214, S264, S304, listed under History of Education; S205, S206, S216, S226, S236, S246, S266, S276, listed under Secondary Education; and S207, S212, S213, S237, S247, S257, listed under Elementary Education.

EDUCATIONAL PSYCHOLOGY (GRADUATE COURSES)

(The Master of Education degree is not offered in this division. Master of Arts candidates should choose Psychology for their minor subject. It will be observed that certain of the courses listed under Educational Psychology are also listed under Supervision, Secondary Education, or Elementary Education.)

S208. Mental Tests and Applications.—A study of the development of intelligence testing, the concept of general intelligence, various recent applications of mental tests, and training in the giving of individual tests. Prerequisite: course S258 or six semester hours of other work in educational psychology or psychology. B, I. 3 s.h.

MR. EASLEY

S209. Statistical Methods in Education.—B, II. 3 s.h. MR.ODELL

- S212. Psychology of the Elementary School Subjects.—A study of the psychology of learning as applied to teaching the common-school subjects.

 A, II. 3 s.h.

 MR. G. W. Bond
- S216. Psychological Principles of Secondary Education.—A study of adolescence and the psychology of learning as applied to teaching the principal high-school subjects. C, I, II. 3 s.h.

 MR. Punké (first term)

 MR. G. W. Bond (second term)
- S218. Educational Implications of Genetic Psychology.—A course tracing the development of the individual through the stages of growth and learning, with emphasis upon early and later childhood; the development of such behavior patterns as play, language, etc.; the process of socialization; and similar material of special significance to teachers in the elementary schools. An advanced section of S118, not open for enrollment to students who have credit for that course. Prerequisite: six semester hours of psychology or educational psychology, including Education S217 as offered in preceding summers or S317. A, I. 3 s.h.

 Mr. Brownell
- S222. The Curriculum and Materials of the Elementary Grades.—Section 1, B; Section 2, C, I. 3 s.h. MR. HILLMAN
- S227. Psychology of Learning: Problems.—The major problems related to the learning process will be examined, with the experimental literature bearing on them. The curves of learning and forgetting, the distribution of practice, economical methods of learning, and the transfer of training will be the major topics considered. A, I. 3 s.h.

 MR. EASLEY
- S237. Investigations in Reading.—A summary of the more important scientific studies in reading; interpretation of the results in terms of aims, methods, materials of instruction, testing, diagnosis, and supervision; emphasis on problems requiring further investigation. D, I. 3 s.h. MR. TIREMAN

- S237A. Investigations in Reading: Primary Section.—A special section of S237 intended for teachers in the primary grades. A, II. 3 s.h.

 MR. TIREMAN
- S237B. Investigations in Reading: Grammar Grade Section.—A special section of S237 intended for teachers in the grammar grades. B, II. 3 s.h.

 MR. TIREMAN
- S247A. Investigations in Arithmetic: Primary Section.—An analytical survey of investigations in primary arithmetic, with three purposes in view: (1) to examine the techniques employed with respect to their adequacy as means of solving the problems attacked; (2) to test the validity of the results announced and the values of these results for the teaching of arithmetic; (3) to locate further problems in arithmetic in need of scientific research. *C, I.* 3 s.h. Miss John
- S247B. Investigations in Arithmetic: Grammar Grade Section.—A special section of S274A intended for teachers in the grammar grades. A, I. 3 s.h.

 Miss John
- S257. Investigations in Language.—A survey of the more important monographs dealing with language, including some discussion of spelling. Evaluation of results, and intensive study of selected problems. Individual reports, and intensive study for each student pertaining to a major problem. C, I. 3 s.h.

 MR. TIREMAN
- S258A. Educational Measurements in the Secondary Schools.—A study of the purposes and uses of standardized and informal tests and scales with special emphasis on their use in the improvement of instruction in secondary schools. A, I. 3 s.h.

 Mr. Odell
- S258B. Educational Measurements in the Elementary Schools.—A special section of S258 intended for teachers in the elementary schools. B, I. 3 s.h.

 Mr. Odell
- S287. Problems of Mentally and Educationally Retarded Children.—A, B, I (second three weeks); A, B, II (first three weeks). 3 s.h. Mr. Wallin
- S288. Problems of Mental Hygiene and Education.—Section 1, A; Section 2, C, I. 3 s.h.

 Mr. Holsopple
 - S289. Character and Personality Testing.—A, II. 3 s.h. Mr. ODELL
- S300. Introduction to Educational Research.—Primarily a pre-thesis writing course designed to be liberalizing as well as technical. The general purpose is to give the student an overview of research, acquaint him with the nature of research processes, and develop within him an appreciation of the essential characteristics of good research work. Recommended for students who intend to write theses in Education in 1942. Required of all candidates for the Master of Education degree who began their work after June 1, 1938. C, I, II. 3 s.h.
 - S300X. Educational Research.—Thesis credit only. D, I, II. 3 s.h.
 MR. Scates
- S317. The Psychological Principles of Education.—An advanced study of teaching, learning, and the learner. This is one of the reading courses required for the Master of Education degree of students beginning work after June 1, 1938. Selected problems guiding the reading of students will be discussed in class. B, I, II. 3 s.h. Mr. Brownell
- S347. Research in Arithmetic.—A course designed for students who have original problems in arithmetic which they desire to investigate. Such studies may be either individual or co-operative. Education S247 is advised as a preliminary course, but is not required. A, II. 3 s.h.

 MR. BROWNELL

HISTORY OF EDUCATION (GRADUATE COURSES)

(The Summer School does not offer a major in this division. Some of the courses that normally would be listed here are found in other divisions. For example, S224, S353, S353A under Public School Administration.)

S214. History of Education in the United States.—A study of the development of the American public school and the interaction of higher education and the public school. B, I. 3 s.h.

Mr. Arrowood

S264. The American School System.—An intensive study of educational thought and practice since 1900. B, II. 3 s.h. MR. ARROWOOD

S304. The School as an Institution.—The place of school in society, its history and philosophy. This is one of the reading courses required for the Master of Education degree of students beginning work after June 1, 1938. Selected problems guiding the reading of students will be discussed in class, and reading students are expected to attend the class from time to time. Other students may take the course for three semester hours credit, as any other graduate course listed. D, I, II. 3 s.h.

MR. Arrowood (first term)

MR. Punké (second term)

SECONDARY EDUCATION (GRADUATE COURSES)

(Master's candidates in this division should elect minor work in their teaching subject, or in Psychology or Sociology, Master of Education candidates are required to elect their minor work in their teaching subject, and all of their work in Education must come from courses listed in this division.)

S200. Introduction to the Philosophy of Education.—A consideration of fundamental concepts underlying educational theory, approached from the study of present-day American educational philosophies. *B, I.* 3 s.h. Mr. Stowe

S205. Curriculum Problems in Secondary Education.—A consideration of practical problems of curriculum-making in the high school, in the light of the objectives of secondary education. Section 1 recommended for high school principals and teachers of more than five years experience. Section 2 recommended for teachers of less than five years experience. Section 1, B, I; Section 2, C, I. 3 s.h.

MR. J. M. GWYNN (section 1)

MRS. HAWKES (section 2)

S206. Sociological Foundations of Secondary Education.—This is primarily a course in guidance. It considers the fundamental institutions of society and the problem of preparing youth to participate in them. The aims and objectives of the secondary school are considered in the light of the school as the strategic agent for guidance. Instead of two weeks conference on "Educational Guidance," such as was held in the summer of 1939, visiting lecturers and discussion groups will appear before the two sections of the class the first term. One section will be scheduled period B, beginning at 9:40, and the other period D, beginning at 2:15. Students enrolled in either section will be expected to schedule no conflicting classes at either period B or D, because the two classes must be free to meet together when visiting lecturers and discussion groups participate in the program. Each class will be limited to a maximum of thirty students, and preference will be given students who have completed six or more hours in secondary education. Section 1, B, I, II; Section 2, D, I. 3 s.h.

MR. P. H. GWYNN (first term)

MR. PUNKÉ (second term)

S216. Psychological Principles of Secondary Education.—C, I, II. 3 s.h.

Mr. Punké (first term)

Mr. G. W. Bond (second term)

S226. Teaching of History and the Social Studies.-A course for teachers of social studies in junior and senior high schools. Discussions and collateral readings upon such topics as aims, tests for values, the social studies curriculum, classroom procedure, course and lesson planning. A, I. 3 s.h.

S234. Secondary School Organization and Administration.—For first-term students: Section 1 recommended for principals of high schools, and teachers of five or more years experience; Section 2, recommended for teachers of less than five years experience. Section 1, C, II; Section 2, B, I, II. 3 s.h.

MR. J. M. GWYNN AND MR. HOWARD (first term)

MR. GOLDTHORPE (second term)

S246. The Teaching of High-School Mathematics.—Identical with Math-Mr. W. W. RANKIN ematics S204. B, I. 3 s.h.

S273. Problems of High-School Supervision.—Section 1, B; Section 2, C, I. Mr. Highsmith 3 s.h.

S276. The Teaching of High-School Science.—Discussion, based upon lectures and collateral reading, of such topics as aims, tests for values, the curriculum, classroom procedure, course and lesson planning in secondary school science. Prerequisite: at least eighteen semester hours of science in college. A, II. 3 s.h.

MR. SLAY

S320. Problems of Secondary and Higher Education.—A study of the aims, curricula, teaching techniques, and educational guidance and student personnel service activities of American institutions of secondary and higher education. Lectures, readings, and reports. Open to high school and college teachers and administrative officers interested in the problems of educational guidance and student personnel service. A, I. 3 s.h. Mr. Stowe

S334X. Thesis Seminar in Secondary Education.—Schedule to be arranged, I, II (first three weeks). 3 s.h. Mr. Childs (first term) MRS. HAWKES (second term)

Note.—If there is sufficient demand before July 25, it is probable that

this seminar will be continued through the second term.

Other courses accepted, not to exceed a total of six semester hours, as work in Secondary Education are the following, when the student has the approval of his major professor: S233 or S233A, S287, S289, S209, S224, listed under the division of Supervision; S208, S217, S218, S219, S258, listed under Educational Psychology; and S264 under History of Education.

ELEMENTARY EDUCATION (GRADUATE COURSES)

(Master's candidates in this division should take their minor work of six semester hours in Psychology, Educational Psychology, or an approved combination of the two, or in Child Welfare and Development—wholly in Sociology, or partly Sociology and Psychology, or Educational Psychology, if a satisfactory combination can be worked out. Master of Education candidates in this division must take fifteen semester hours of work described or listed under Elementary Education.)

- S212. Psychology of the Elementary School Subjects.—A, II. 3 s.h.
 MR. G. W. Bond
- S213. Problems of Elementary Administration.—A, C, II (first three weeks). 3 s.h. Mr. HILLEGAS
 - S218. Educational Implications of Genetic Psychology.—A, I. 3 s.h. MR. BROWNELL

S222. The Curriculum and Materials of the Elementary Grades.—Section 1, B; Section 2, C, I. 3 s.h.

MR. HILLMAN

S232. Elementary School Supervision.—C, II. 3 s.h.

Mr. Overn

S233A. Pupil Personnel Problems in the Elementary School: Guidance.—
(For elementary principals and principals of union schools.)

A, C, I (first three weeks).

3 s.h.

MISS STRANG

S237. Investigations in Reading.—D, I. 3 s.h.

Mr. TIREMAN

S237A. Investigations in Reading: Primary Section.—A, II. 3 s.h.
MR. TIREMAN

S237B. Investigations in Reading: Grammar Grade Section.—B, II. 3 s.h.
MR. TIREMAN

S247A. Investigations in Arithmetic: Primary Section.—C, I. 3 s.h.
Miss John

S247B. Investigations in Arithmetic: Grammar Grade Section.—A, I. 3 s.h. Miss John

S257. Investigations in Language.—C, I. 3 s.h.

Mr. TIREMAN

S267. Studies in the Teaching of Elementary School Science.—Discussion, based upon lectures and collateral reading, of such topics as aims, tests for values, the curriculum, classroom procedure, course and lesson planning in elementary school science. Prerequisite: at least eighteen semester hours of science in college. C, II. 3 s.h.

MR. SLAY

S287. Problems of Mentally and Educationally Retarded Children.—A. B. I (second three weeks); A, B, II (first three weeks). 3 s.h. MR. WALLIN

S288. Problems of Mental Hygiene and Education.—Section 1, A; Section 2, C, I. 3 s.h.

MR. HOLSOPPLE

S304. The School as an Institution.—D, I, II. 3 s.h.

Mr. Arrowood (first term)
Mr. Punké (second term)

S305. The Nature, Function, and Reorganization of the Curriculum.—A, MR. CARR

S322. Seminar in Elementary Education.—Thesis students in elementary education should attach themselves to this course for supervision and residence credit. D, I. 3 s.h.

MR. CARR

Other courses accepted, not to exceed a total of six semester hours, as work in Elementary Education are the following, when the student has the approval of his major professor: S224, S233 or S233A, listed under the division of Supervision; S208, S217, S219, listed under Educational Psychology; and S264 under History of Education.

UNDERGRADUATE COURSES

(By permission Seniors may enter graduate courses numbered below 300. Attention is called to the fact that toward the A.B. degree not more than six semester hours of methods courses are allowed to count.)

S58. The Learning Process.—A course in elementary educational psychology. A, I. 3 s.h. Mr. K. B. Watson

S68. Mental Hygiene of the School Child.—A course primarily for teachers in the elementary school. A study of personality factors as related to the adjustment and success of the school child; the foundations of motivation; typical problems of maladjustment; social heredity and its educational implications; variations in intelligence. A, I; C, II. 3 s.h.

Mr. Godard (first term)
Mr. McEwen (second term)

- S83. Current Trends in American Public-School Organization.—A study of current controversies and criticism bearing on the organization and administration of the public schools, recent developments in the organization of schools, and the theories underlying these developments. B, I. 3 s.h.

 Mr. Curtis
- S117. Analysis of Study and Study Habits in the Elementary School Subjects.—A study of the available literature on study and study habits, with practical discussions, planned to meet the needs of teachers and supervisors in the elementary schools. C, I. 3 s.h.

 MR. CURTIS
- S118. Educational Implications of Genetic Psychology.—A course tracing the development of the individual through the stages of growth and learning, with emphasis upon early and later childhood; the development of such behavior patterns as play, language, etc.; the process of socialization; and such similar material of special significance to teachers in the elementary schools. *B, I.* 3 s.h. Mr. K. B. Watson
- S162. Social Studies in the Primary Grades.—A study of programs, principles, and procedures in the social studies in the primary grades, with more detailed methods of planning, selecting materials, and teaching specific units. A, C, I (second three weeks). 3 s.h.

 MRS. PORTER
- S182. The Teaching of Geography.—Emphasis upon developing methods of reasoning with geographical materials. Diagnosis of specific difficulties of teaching geography and suggestions for remedial teaching. Recommended for teachers of two or more years' experience or persons who have had college courses in geography. (See Economics S115, S116.) *C, I.* 3 s.h.

 MR. GODARD

PUBLIC SCHOOL ART

A. Integrated Art in the Public School.—This course is offered to develop certain skills fundamental in the teaching of public school art as well as skills that will prove of help in teaching other subjects of the elementary school curriculum. Topics: color theory, design, perspective, representation, figure drawing, illustration, picture study, etc. Emphasis varies with the needs of the class. Media: tempera color, crayon, clay, etc. (A required course in the Elementary Teaching Group.) A and 10:45-12:55, I (second three weeks).

3 s.h. Mrs. Mason

HYGIENE AND HEALTH EDUCATION

- S112. Personal and School Hygiene.—General, personal, and school hygiene with some instruction in anatomy and physiology; cause, transmission, and prevention of communicable disease; the more common defects of school children; schoolhouse sanitation; medical inspection; etc. A, C, I (first three weeks). 3 s.h.

 MISS GARDINER
- S132A. Materials and Methods in Health Education: Primary Grades.— A, I. 3 s.h. Mr. Aycock
- S132B. Materials and Methods in Health Education: Grammar Grades.—A special section of S132 for teachers in grammar grades. B, I. 3 s.h.

Note.—Both sections of S132 work out programs of physical and health education in the grades.

NOTE AS TO UNDERGRADUATE PHYSICAL EDUCATION

Undergraduate students in Trinity College are required to take six semester hours of physical education, divided into four courses taken one each term during their first two years in college. Among the courses offered to meet the physical education requirements are Swimming S13 (for beginners), and Swimming 63 and 14.5 (for more advanced students). By request, these courses are offered for men the first term this summer on the West Campus, under the direction of Swimming Coach W. S. Persons. Course 13 is scheduled for Period 1, and course 63 for Period 2. Each course carries physical education credit of one and one half semester hours, is limited to a maximum enrollment of thirty students and involves a special fee of \$5.00. Similarly, arrangements can be made for women on the East Campus the first term of Summer School if there is sufficient demand.

ENGINEERING

C.E. S10. Plane Surveying.—Use of instruments; transit, stadia, compass, and plane-table surveying; simple triangulation; determination of meridian by observation on Polaris; differential and profile leveling; setting grade stakes; calculation of bearings, latitudes, and departures; areas by planimeter; methods of plotting; survey and plot of sections of the campus by stadia, and transit and tape. Prerequisite: drawing and trigonometry. Three weeks, eight hours a day, beginning May 29. 3 s.h.

Mr. W. H. HALL, Mr. BIRD, Mr. J. D. WATSON, AND MR. WILLIAMS

C.E. S110. Plane Surveying.—A special section of C.E. S10 intended for the students in Forestry and others of advanced standing. Prerequisite: drawing and trigonometry. Three weeks, eight hours a day, beginning May 29. 3 s.h. Mr. Bird

ENGLISH

Those who wish to become candidates for the Master's degree in English are expected to have at least twelve semester hours in courses above sophomore requirements. The Department reserves the right to require additional course work on the graduate level if the work of the student in his first term indicates inadequate preparation. For admission to candidacy with a major in American Literature, the student must present courses S137-S138 or an acceptable equivalent in American Literature either as part of the twelve stipulated above or in addition to them.

Master's candidates in English are required to complete at least three semester hours in Chaucer or certain other designated courses. Master's candidates who have completed as many as twelve semester hours of graduate work should take also the bibliography course, S301, at their earliest oppor-

All graduate students in English who enter the Summer School after June 1, 1940, must take a general examination set by the advisory committee of the Department before they will be admitted to candidacy for a degree. This examination is held at the opening of the first term of Summer School each year. It must be passed by every student not later than the beginning of his third term of summer school work.

S1. English Composition.—A course in the fundamentals of English composition, oral and written, with special attention to sentence structure, syntax, common errors, etc. Frequent themes. A, II. 3 s.h. Mr. Harwell

(Note: High-school graduates of the class of 1941 who are entering college for the first time or are entering this course with the approval of the Dean's office are expected to report July 16 for a thoroughgoing review and orientation before the regular course begins. Other students are expected to report at the regular registration July 22, but have the privilege of reporting earlier if they wish.)

- S2. English Composition.—A continuation of course S1. C, II. 3 s.h.
 MR. HARWELL
- S55. Representative English Writers.—Chaucer, Malory, More, Shakespeare, Pepys, and Swift will be studied. B, II. 3 s.h. Mr. SANDERS
- S120. History of the Theater.—History of the theater from the time of the Italian Renaissance to the present day. B and 2:30-4:00, II (first three weeks). 3 s.h.

 MR. West
- S121. Play Production.—This course deals with the theory and practice of producing plays. The work includes make-up, lighting, scene-design and painting, costume, directing, and stage-management. There is practice-work both in the laboratory and in the theater. Lectures 2:30-3:30 every other day beginning June 11, and laboratory 2:30-4:30 every other day beginning June 12, I. 3 s.h.
- S123. Shakespeare.—The histories and comedies. (This course duplicates S124 as offered in the summer of 1937 and preceding summers.) A, I. 3 s.h.

 MR. MITCHELL
- S124. Shakespeare.—Introduction and detailed study of the tragedies. (This course duplicates S123 as offered in the summer of 1937 and preceding summers.) C, I. 3 s.h.

 MR. MITCHELL
- S137. American Literature prior to 1850.—This course consists of wide reading in American prose and poetry produced prior to 1850. B, I. 3 s.h.

 Mr. Hornberger
- S139. The Speaking Voice.—This course gives training in placement, pitch, range, and diction for use in professional work and in daily conversation. *C, I.* 3 s.h. Mr. West
- S146. English Poetry, 1832-1900.—Emphasis will be placed on Arnold and the Pre-Raphaelites. (Not open to those registered in English S145 in the summer of 1940.) C, II. 3 s.h. Mr. SANDERS
- S151. Speech.—A course in the fundamentals of public speaking with emphasis upon the effective presentation of ideas. A, I. 3 s.h. Mr. Lewis
- S152. Argumentation.—A course dealing with the principles of argumentation and debating with special emphasis upon brief-making and practice-speaking. Public questions are studied as parallel work. Prerequisite: English S151. D, I. 3 s.h.

 MR. Lewis
- S163. Folk Background of Literature.—A special section of S213 for undergraduate students. The reading of fables, tales, legends, nursery rhymes, ballads, and songs. Attention given to North Carolina and Southern folklore. Lantern slides and illustrative singing. A, I. 3 s.h. Mr. J. M. CARPENTER
- S203. Chaucer.—A survey of his life and principal poems, the development of his art, the sources and social background of his poetry. A, I. 3 s.h.

 MR. BAUGH
- S204. Chaucer Problems.—Intensive study of selected poems and the problems connected with them. Prerequisite: English S203. A, II. 3 s.h.

 MR. BAUGH
- S208. English Drama from the Beginnings to 1560.—Classical and early mediaeval traditions of the drama will be considered briefly. The liturgical plays, the mystery and morality plays both cyclical and noncyclical, the interlude, the folk drama will be examined from the point of view of their contributions to the Tudor stage. B, II. 3 s.h. Mr. Spargo

- S210. English Literature, 1660-1700.—A study of the poetry and prose between 1660 and 1700. Chief emphasis will be placed on the works of Dryden, Butler, Marvell, Oldham, Cowley, Saville, Temple, and Swift. Milton will be omitted. B, I. 3 s.h.

 MR. WARD
- S212A. Seventeenth-Century Nondramatic Poetry.—Studies in the later poetry of the English Renaissance, 1603-1660, exclusive of Milton, with emphasis on Donne and the metaphysical school. A, I. 3 s.h. Mr. Parker
- S213. Folk Background of Literature.—Rapid reading of fables, tales, legends, nursery rhymes, popular ballads, and other folk songs. Special attention given to North Carolina and Southern folklore. Lantern slides and illustrative singing. C, I. 3 s.h.

 MR. J. M. CARPENTER
- S216. The English Drama in the Reign of James I.—A study of the later contemporaries of Shakespeare, with emphasis upon the plays of Ben Jonson. D, I. 3 s.h. Mr. GILBERT
- S220. English Literature, 1750-1800.—A survey of the prose and poetry of the second half of the eighteenth century, with special emphasis on Gray, Goldsmith, Cowper, Chesterfield, Johnson, Boswell, Horace Walpole, Burns, and Blake. B, I. 3 s.h.

 Mr. R. P. Bond
- S221. English Drama, 1660-1780.—A study of the principal plays between Dryden and Sheridan. Lectures and reports. A, I. 3 s.h. Mr. WARD
 - S223. Survey of Early Nineteenth-Century Literature.—A, I. 3 s.h. Mr. Griggs
- S225A. Early Victorian Literature: Browning.—A study of Browning's poetry and its contribution to nineteenth-century thought. Special attention will be given to the shorter poems, four books of the Ring and the Book, and three of the dramas. B, II. 3 s.h.

 MR. GRIGGS
- S226. Later Victorian Literature, 1850-1900.—A study of the major writers of this period. Special attention will be given to Arnold, Browning, Rossetti, Swinburne, Ruskin, and Pater. A, II. 3 s.h. Mr. GRIGGS
- S227. Literary Criticism.—Literary criticism from Aristotle to Dryden. D, II. 3 s.h.
- S229. American Literature, 1800-1870: The New England Writers.—A survey of the principal writers of the period, including Emerson, Hawthorne, Longfellow, Whittier, Lowell, Holmes, and Thoreau. A, I. 3 s.h.

 MR. HORNBERGER
- S230. American Literature, 1800-1870: Middle Atlantic and Southern.—A survey of the principal writers of the period, including Poe, Irving, Cooper, Melville, and Simms. B, I. 3 s.h. Mr. C. R. Anderson
- S233. American Literature since 1870: Part. I.—A survey of the principal writers of the earlier part of this period, including Whitman, Mark Twain, and Lanier. C, II. 3 s.h.

 MR. MABBOTT
- S243. History of the English Language.—Identical with English S211 as given in 1937. B, I. 3 s.h. Mr. Spargo
- S268. Milton: Minor Poems and Prose Writings.—Problems in their interpretation, with attention to the biography of Milton. B, I. 3 s.h.

 Mr. Parker
 - S269. Southern Literature and Culture before 1865.— \mathcal{C} , I. 3 s.h. Mr. Hubbell

S301. Bibliography and Methods of Research.—This course or its equivalent is required of all candidates for higher degrees. (Limited to 12 students.) C, I, II. 3 s.h. Mr. Spargo

S304. Studies in Poe.—A study of his life and writings, with attention to text, sources, and interpretation. D, II. 3 s.h. Mr. Mabbott

S307. Seminar in American Literature prior to 1870.—(Limited to 12 students.) D, I. 3 s.h. Mr. C. R. Anderson

Note.—Enrollment in S307 and S308 is drastically limited, and preference is given to thesis students. Enrollment by permission of the instructor.

S308. Seminar in American Literature since 1870.—B, I. 3 s.h.
MR. Hubbell

S311. English Literature from the Norman Conquest to Chaucer, Part I.—A survey of Anglo-Norman Literature, the Twelfth-Century Renaissance, the French and Latin background of English vernacular writing, and the important English works of the first period, such as the Ancren Rivele, The Owl and the Nightingale, Layamon's Brut, the Bestiary, etc. B, I. 3 s.h.

MR. BAUGH

S312. English Literature from the Norman Conquest to Chaucer, Part II.—
The beginnings of the lyric, the Middle English romance, the great works of religious instruction (Cursor Mundi, etc.) and the allegory (Piers Plotoman, The Pearl). B, II. 3 s.h.

MR. BAUGH

S319. Seminar in English Literature, 1700-1780.—Students writing theses in this field should register for this course. Enrollment both of students writing theses and students with other problems strictly limited. C, I. 3 s.h.

MR. R. P. BOND

S323. Studies in Coleridge.—Coleridge's contribution to romantic thought. An attempt will be made to study the major influences upon Coleridge's thought. Each student will be expected to give at least one oral report and to prepare a written paper. Students writing theses in this field will be given preference as to enrollment. *C, I.* 3 s.h. Mr. Griggs

S329. Seminar in Sixteenth- and Seventeenth-Century English Literature. —Open by permission of the instructor to students who have had at least one course in the drama or other literature of the period. The Restoration will not be dealt with. Students writing theses on subjects from these centuries should register for this course. Schedule to be arranged, I, II. 3 s.h.

Mr. GILBERT

FORESTRY

Candidates for the Bachelor of Science degree with a major in Forestry are required to take Civil Engineering S110 (Plane Surveying) in Summer School at the close of their Junior year. This course is listed under Engineering, page 45, this bulletin. Candidates in Forestry are also expected to take the following courses after completing the required work in Engineering.

S150. Forest Surveying.—The application of plane surveying to forest problems. Practice in making boundary and topographic surveys of forested tracts, using both intensive and extensive methods. Work includes use of transit, level, traverse board, topographic abney and slope tape, and aneroid barometer. Prerequisite: Civil Engineering S110, Plane Surveying, or equivalent. Five weeks, eight hours a day, beginning June 19. 5 s.h. (w)

Mr. Maughan

S151. Forest Mensuration.—Field studies in methods of measuring content and growth of trees and forest stands; practice in timber estimating, log scaling, use of mensurational instruments, and the collection of basic data. Four weeks, eight hours a day, beginning July 24. 4 s.h. (w)

Mr. Schumacher

FRENCH

- S1. Elementary French.—Grammar, translation from French into English and English into French, pronunciation, sight translation, and conversation. A, C, I. (first three weeks). 3 s.h. MISS RAYMOND
- S2. Elementary French.—Continuation of course S1. A, C. I (second three weeks). 3 s.h. Mr. Hasbrouck
- S3. French Prose.—Reading and translation, exercise in grammar review and verb drill. Prerequisite: French S1-S2 or two years of high-school French. B, I. 3 s.h.

 MR. BROWN
- S4. French Prose.—Reading and translation, writing in French at dictation, and aural drill. Prerequisite: French S3. C, I. 3 s.h. Mr. Cowper
- S51. Introduction to French Literature.—Prerequisite: French S3-S4 or equivalent. A, II. 3 s.h. Mr. G. Davis
- Note.—Students who completed their second-year college French more than two years ago should check carefully with the instructor before entering \$51.
- S52. Introduction to French Literature.—Prerequisite: French S51. C, II. 3 s.h. Mr. G. Davis
- S205. The Psychological Novel in France.—A brief survey of the modern French novel from Madame de Lafayette to Paul Bourget in terms of the evolution of the technique of psychological analysis. Reading will be limited to titles which exemplify this particular trend. Group discussions and reports on individual projects. B, II. 3 s.h. Mr. Jordan
- S211. Nineteenth-Century French Drama.—Drama from the Romantic period to the close of the century. B, I. 3 s.h. Mr. Cowper
- S217. French Phonetics.—French sounds and French spelling; pronunciation drills; exercises in phonetic transcription and dictation; diction, aural comprehension. C, I. 3 s.h.

 MR. Webb
- S226. The French Short Story of the Nineteenth Century.—A study of the story as a literary form, along with consideration of the problem of editing stories for school use. C, II. 3 s.h.

 MR. JORDAN
- S227. The Parnassian Movement and Its Expression in the Works of Anatole France.—A study (in poetry and prose literature) of the reaction against Romanticism and the resistance to certain implications of Realism. A, I. 3 s.h.
- S233. Main Currents of Modern French Literature.—A survey of the principal literary tendencies from the seventeenth to the nineteenth centuries. Selected illustrative readings from leading authors. Required of all candidates for the Master's degree in French, unless a similar advanced course has been taken previously. Offered in alternate summers, but when possible should be taken near the close of the course work. C, I. 3 s.h. Mr. Walton

GEOGRAPHY

See courses listed under Economics.

GEOLOGY

S51-S52. General Geology.—This course is designed to give a general view of the surface features of the earth, their origin, structure and materials, and a working knowledge of the chief events of the earth's history (i.e., it will cover physical and historical geology). Two and three-fourths hours recitation daily and three hours laboratory four days a week. Lecture or recitation, 1, B, daily; laboratory, 2:00-5:00 p.m., Tuesday, Wednesday, Thursday, Friday, I (Inne 11 to July 29). 8 s.h. (w) (Laboratory fee, \$5.00.) (Limited to 24 students.)

GERMAN

S3. Intermediate German.—Grammar and composition; dictation, spoken German; reading of narrative and dramatic prose. A, I. 3 s.h.

MR. KRUMMEL

S4. Intermediate German.—Grammar and composition; dictation, spoken German; reading of narrative and dramatic prose. C, I. 3 s.h.

Mr. Krummer

S107. Scientific German.—The German language as used in the various contemporary sciences. A, I. 3 s.h.

MR. MAXWELL

S108. Advanced Scientific German.—Advanced scientific German with special emphasis on medical German. C, I. 3 s.h. Mr. Maxwell

GOVERNMENT

See courses listed under Political Science.

GREEK LITERATURE

(In English Translation)

S121. Homer.—The purpose of this course is to give a general survey of the life and civilization of the Greeks, especially to those who have never studied the language but wish to become acquainted with some of the choicest portions of the literature by the use of translation. It is, however, open as an elective to all Juniors and Seniors, whether they know Greek or not. The Iliad and Odyssey are read in translation and illustrated with stereopticon views of the excavations and discoveries at Troy and other cities of the Mycenaean Age. Reports on assigned topics required. D, I. 3 s.h. Mr. Jernigan

S122. Greek Literature: The Great Tragedies.—The purpose of this course is similar to that of course S121. Many of the extant plays of Aeschylus, Sophocles, and Euripides are studied in English translations, and reports on assigned topics are required. B, I. 3 s.h.

MR. JERNIGAN

HISTORY

For admission to candidacy for a Master's degree in History the student must present a total of eighteen semester hours of prior work in History, of which at least six must be in American History if he plans to take his major work in that field. Before enrolling for thesis supervision, candidates for the Master's degree are required to complete at least three semester hours of seminar work and are strongly urged to enroll for this work in the second term of their attendance in the Summer School. (See courses numbered 300 or above.)

S51. Modern and Contemporaneous Europe.—The history of Europe since the beginning of the sixteenth century to 1814, with special reference to the rise of nationality, the Industrial Revolution, colonial expansion, and international relations. B, I. 3 s.h.

MR. ROPP

- S52. Modern and Contemporaneous Europe.—The history of Europe since 1814. C, I, II. 3 s.h. Mr. Ropp (first term) Mr. McCloy (second term)
- S91. Political and Social History of the United States to 1850.—A general study of the development of the United States, prefaced by a brief review of the Colonial era, covering the period from the Revolution through the Compression of 1850. promise of 1850. A, I, II. 3 s.h. Mr. Bettersworth (first term) MR. C. S. DAVIS (second term)
- S92. Political and Social History of the United States since 1850.—A continuation of course S91, concluding with an introduction to problems that have arisen in the United States since the World War. C, I, II. 3 s.h.

Mr. Bettersworth (first term) Mr. C. S. Davis (second term)

- S101. Development of Western European Civilization to about 500 A.D .-A study of the development in Western Europe of the familiar institutions and culture of modern society as developed from ancient times through the Roman period. A, I. 3 s.h. MR. MANCHESTER
- S102. Development of Western European Civilization from 500 to 1563 A.D.—Continuation of course S101 through the Renaissance, Reformation, and Catholic Counter-Reformation. Students may enter this course independently of S101. B, I. 3 s.h. Mr. Manchester
- S203. The Union, Confederacy, and Reconstruction.—The subjects considered are the rise of secession, the constitutional and economic problems of the Union and Confederacy, and the political and economic adjustments during Reconstruction. C, I, II. 3 s.h.

 MR. SWEARINGEN (first term) MR. SWEARINGEN (first term)
 MR. WOODY (second term)
- S208A. American Social History to 1850.—This course includes an analysis of American society in the late Colonial period, a survey of the social effects of the American Revolution, an account of early attempts to achieve a distinctive national culture, and a summary of the reform movements of the 1830's and 1840's. Especial attention is given to the manners and morals, interests and amusements of the average American. A, I. 3 s.h.

Mr. Shryock

- S208B. American Social History since 1850.—Among the topics presented are sectional variations in American life in the 1850's, social readjustments caused by civil conflict and Reconstruction, modifications in American culture as a result of industrialization and urbanization, the social effect of twentieth-century inventions, and the impact on American society of the World War and the depression. A, II. 3 s.h.
- S213. Recent History of the United States .- This course emphasizes the period since the Spanish-American War. B, I. 3 s.h. Mr. GATES
- S215. History of the United States' Foreign Policy prior to 1876.—This course traces the history of American diplomacy from 1787 to 1876. A, I. 3 s.h.
- S217. Europe, 1870-1914.—International relations since the Franco-German War; emphasis upon the underlying economic and political influences, particularly with reference to England. B, II. 3 s.h. Mr. Mathews
- S218. Europe since 1914.—A study of the World War, the Paris Peace Conference, the international aftermath of the war, and the recent internal developments in the major states of Europe.

 A, I, II. 3 s.h.

 MR. WEDEL (first term)

Mr. Mathews (second term)

S221. The Age of the Renaissance: Political, Social, and Economic History.—This course and S222 will cover the fourteenth, fifteenth, and sixteenth centuries in Southern and Western Europe, examining those forces—both creative and destructive—which converted medieval society and culture into their early modern forms. S221 will emphasize the growth of political institutions, the prolonged crisis of the Church, the advance of geographical knowledge throughout the period. B, I. 3 s.h.

MR. Durand

S222. The Age of the Renaissance: Intellectual History.—This course will begin with a description of the "medieval synthesis" as represented in Dante and Aquinas. It will examine the disruption of that synthesis during the fourteenth century through the influence of mysticism and nominalism. It will then consider the attempts at intellectual re-orientation—particularly Italian and Northern humanism—which preceded the Reformation. Considerable emphasis will be placed on the history of science during the period. Art and literature will be discussed in so far as they relate to general intellectual history. C, I. 3 s.h.

MR. Durand

S232. Hispanic Republics of the New World.—A survey of the political, economic, and social development of the Hispanic-American nations since the beginning of the movement for independence in 1810. C, I. 3 s.h.

MR. LANNING

S236. The South in Federal Politics, 1789-1860.—3 s.h. Mr. Green

S237. Social and Intellectual Development of the Old South.—Consideration will be given to conditions in the South in respect to slavery, agriculture, manufacturing, transportation, education, religion, science, and literature. A, I. 3 s.h.

MR. SWEARINGEN

S266. The Westward Movement in the United States since 1850.—A study of the progress of settlement from the Atlantic to 'the Pacific Coast with especial attention to the transmission of culture, developments in transportation, the transition from agrarian to urban communities, the process of state-making, and the social, economic, and political effects of the westward march upon the United States as a whole. A, I. 3 s.h. Mr. GATES

S268. Social History of Western Europe during the Eighteenth Century.—A study of the life and manners of the peoples of Western Europe during the 1700's. Especial attention will be given to Great Britain and France. Among the topics treated will be amusements, dress, social conventions, sanitation, crime and punishment, prisons, hospitals, asylums, educational institutions, libraries, secret societies, roads, and travel. B, II. 3 s.h. MR. McCLov

S308. Seminar: Social History of the United States.—(Open to students taking S208 or equivalent.) D, I, II. 3 s.h. Mr. Shryock (first term) Mr. Robert (second term)

S315. Seminar in Southern History.—Selected topics in the development of the Southern region, chosen year to year in different periods in its development. B, I, II. 3 s.h.

MR. GREEN (first term)

MR. Woody (second term)

S317. Seminar in Modern European History.—Directed research in problems relating to the history of Europe in the nineteenth and twentieth centuries. D, I. 3 s.h.

MR. Wedel

S325-S326. British Nationality and Public Opinion.—A study of the pressure technique used by the various leaders and groups that have contended for power in England since the sixteenth century. The work will consist of lectures and a seminar for the supervision, criticism, and discussion of the research paper which each student is required to submit and which constitutes his work in the course. B, C, I. 6 s.h.

MR. LAPRADE

S333. Studies in Hispanic-American History and Related Fields.—Prerequisite: History S231 or S232 and S234. Enrollment is limited to twelve students. Students writing theses under Dr. Lanning's direction will attach themselves to this course. D, I. 3 s.h.

MR. LANNING

S343. Seminar in the History of American Foreign Relations and the Far East.—D, I. 3 s.h. Mr. Clyde

MATHEMATICS

For admission to candidacy for the degree of Master of Arts with major in Mathematics a student must have a minimum of twenty-four semester hours of credit for course work in mathematics or related fields. This course work must be approved by the Department through the Director of Graduate Studies, Professor J. J. Gergen, or his representative. It must include differential and integral calculus and an additional six semester hours of work in mathematical courses of at least junior level.

To obtain the degree a candidate must specialize in one of the following divisions of mathematics: algebra, analysis, or geometry. In his division of specialization he must write his thesis and complete at least twelve semester hours of course work. To help students meet the thesis requirement, the Department offers a thesis seminar (course S389X-S390X) in which supervision of thesis writing is available in one or more of the divisions. The scope of

the seminar is announced each year in this bulletin.

Each student should, as early as possible in his graduate work, discuss his program with Professor Gergen or his representative.

S204. Teaching of Mathematics.—Fundamental processes, methods of study, mathematical literature, content of courses, applications, use of instruments, correlation of different branches. Prerequisite: integral calculus. B, I. 3 s.h.

MR. W. W. RANKIN

- S205. Modern Developments in Mathematics.—Historical survey of mathematics, with special reference to discoveries of the last one hundred years and their significance from the standpoint of elementary mathematics. *C, I.* 3 s.h. Mr. Murnaghan
- S207. Fundamental Concepts in Algebra, Analysis, and Geometry.—A study of elementary mathematics from an advanced point of view. The concepts: axiom, consistency, number, group, field, space. Lecture daily, 1; laboratory, Thursday 2:15-4:20 p.m., II. 3 s.h.

 MR. ROBERTS
- S225. Theory of Equations.—Permutations, determinants, linear systems, polynomials and their roots, constructibility, symmetric functions, resultants, simultaneous equations. Thomas, *Theory of Equations*, New York, 1938. Prerequisite: differential calculus. *Lecture daily*, 1; laboratory, Thursday 2:15-4:20 p.m., I. 3 s.h.

 MR. CARLITZ
- S226. Galois' Theory of Equations.—Permutation group; groups of an equation; solvability by radicals. Prerequisite: Mathematics S225 or special permission from instructor. B, II. 3 s.h.

 MR. THOMAS
- S239. Advanced Calculus.—Continuity and differentiation for functions of one and several variables; Taylor's expansion with applications; definite, improper, and infinite integrals. Fite, Advanced Calculus, New York, 1938. Prerequisite: integral calculus. Lecture daily, 3; laboratory, Friday 2:15-4:20 p.m., I. 3 s.h.

 Mr. Gergen
- S240. Advanced Calculus.—Double and triple integrals; infinite series; power series; implicit functions with applications to geometry. Text as for S239. Prerequisite: Mathematics S239 or special permission from instructor. Lecture daily, 1; laboratory, Friday 2:15-4:20 p.m., II. 3 s.h. Mr. Thomas

- S255. Projective Geometry.—Postulational, synthetic treatment, centering around Desargues' theorem, the principle of projectivity, and the principle of duality; introduction of co-ordinate systems. Veblen and Young, Projective Geometry, Vol. I, Boston, 1910. Prerequisite: differential calculus. B, I. 3 s.h.

 MR. CARLITZ
- S256. Projective Geometry.—Continuation of S255 with same text. Conics, collineations, order, continuity, metric properties. Prerequisite: S255 or special permission from instructor. *C*, *II*. 3 s.h. Mr. ROBERTS
- S284. Vector Analysis.—Vectors in three-dimensional Euclidean space with applications to physics; introduction to tensor analysis. Taylor, Vector Analysis, New York, 1939. Prerequisite: integral calculus. B, I. 3 s.h.

 MR. MURNAGHAN
- S325. Real Variable.—Measure; Riemann and Lebesgue integrals. Kesstelman, Modern Theories of Integration, New York, 1937. Prerequisite: S239. Lecture daily, 1; laboratory, Wednesday 2:15-4:20 p.m., 1. 3 s.h.
- S389X. Thesis Seminar.—Supervision of individual theses in algebra, analysis, and geometry. Students should consult the Director of Graduate Studies or his representative before registering. Thesis credit only. Schedule to be arranged, I. Mr. Carlitz, Mr. Gergen, and Mr. Murnaghan
- S390X. Thesis Seminar.—Supervision of individual theses in algebra, analysis, and geometry. Students should consult the Director of Graduate Studies or his representative before registering. Thesis credit only. Schedule to be arranged, II.

 MR. ROBERTS AND MR. THOMAS

MUSIC

S151. Materials and Methods in Public School Music.—The elements of harmony, rhythm, and form. The visual and aural recognition of scales, intervals, triads, and seventh chords and their functions in relation to the system of tonality. Harmonization of melodies. Development of rhythmic discrimination. A study of materials and methods of teaching vocal music in public schools. Treatment of the child voice, rote singing, chord singing, voice testing, balance, organization, and supervision. A, C. I. (first three weeks). 3 s.h.

MR. BRUINSMA

PHYSICS

For admission to candidacy for a Master's degree with major in Physics, students must have completed a minimum of twelve semester hours of Physics. This course work, together with the work in the field of the proposed minor, must be approved by the Department through the Director of Graduate Studies.

- S1-S2. General Physics.—This course traces historically and experimentally the development of great principles. It stresses neither mathematical processes nor exact measurements. Three-hour recitation and two-hour laboratory daily. Lectures 1, 2, 3; laboratory, 2:00-4:00 p.m. daily, I (June 5 to July 21). 8 s.h. (w) (Laboratory fee, \$4.00.)

 MR. D. W. CARPENTER, MR. PATTERSON, AND MR. RICHARDS
- S106. Photography.—A practical course on the making and processing of photographs and the application of photography to the sciences and arts. In general each students will be expected to supply his own camera and film. (Limited to 12 students.) Lectures 2:00-3:30 every other day beginning June 11; laboratory 2:00-5:00 every other day beginning June 12, I; lectures A; laboratory 9:30-12:30 daily, II (first three weeks). 3 s.h. (w) (Laboratory fee, \$5.00.)

- S207. Electricity and Magnetism.—This course covers the fundamental phenomena of direct and alternating currents and magnetism. Two lectures and three-hour laboratory. Lectures B daily; laboratory 2:00-5:00 p.m. every other day beginning June 12. I. 3 s.h.

 MR. CONSTANT
- S208. Electricity and Magnetism.—Continuation of S207. Lectures B daily; laboratory 2:00-5:00 p.m. every other day beginning July 23. II. 3 s.h.

 MR. MOUZON
- S353X. Research Seminar.—Thesis students and others who are properly qualified may carry on research work under the direction of members of the staff. Each student must have the approval both of the Director of Graduate Studies and of the instructor who supervises the problem. Schedule to be arranged, I. 2 to 6 s.h.

 Mr. Bonner and Mr. Mouzon

POLITICAL SCIENCE

- S61. American Government and Politics.—A study of the American political system, emphasizing the organization and functioning of the national government. A, I, II. 3 s.h.

 MR. GIBSON (first term)

 MR. SIMPSON (second term)
- **S62.** American Government and Politics.—A study of the American political system emphasizing the organization and functioning of state and local government. Continuation of S61. *C, I, II.* 3 s.h.

Mr. Gibson (first term)
Mr. Simpson (second term)

- S209. State and Local Government in the United States.—A study of the historical development of state and local governments, their present organization, their relation to each other and to the federal government. A, I. 3 s.h.

 MR. R. S. RANKIN
- S225. Comparative Government.—A comparative study of modern political institutions, with special reference to bureaucracy, federalism, and fascism. B, I. 3 s.h. Mr. Cole
- S226. Comparative Government.—A comparative study of modern political institutions, with special reference to dictatorship, constitutions, representation, parliamentarism, and separation of powers. This course is open by permission of the instructor for enrollment to students who have had the equivalent of course S225 or are enrolled in that course. C, I. 3 s.h. Mr. Cole
- S242. The Administrative Process.—The forms and types of governmental action, delegated legislation, administrative adjudication, the control of administration, and special problems in economic balancing and proprietary activities. A, II. 3 s.h.

 MR. SHIPMAN
- S246. Legislation.—A study of the legislative process with attention to procedure, methods, techniques, delegation of discretion, and the use of controls. *C, II.* 3 s.h. Mr. Shipman
- S310. Seminar in State Government.—Open to students who have completed course S209 or its equivalent. *C, I.* 3 s.h. Mr. R. S. Rankin

PSYCHOLOGY

S101. Introduction to Psychology: General Principles of Mental Activity and Growth.—Lectures, demonstrations, prescribed readings, and reports. A, I. 3 s.h.

MR. KEMP

- S204. Psychology of Motivation.—A consideration of the fundamental properties and modes of action of motivational forces, their constitutional basis, modification, and organization into complex systems of the personality. *C, II.*MR. Zener
- S207. Psychology of Thinking, Memory, Perceiving.—A study of various kinds of thinking, remembering, and perceiving with reference to the basic processes involved and their determining conditions. The roles of the factors of organization, meaning, and motive as studied in humans are especially considered. B, II. 3 s.h. Mr. Zener
- S217. Gestalt Theory.—Critical survey of principles and experimental contributions of the Gestalt School. C, I. 3 s.h. Mr. Adams
- S315. Child Psychology.—A study of experiments bearing upon the structure of the psychological person and of its psychological environment, and the character of the changes they undergo in the course of maturation, together with certain implications of these changes for the mental hygiene and pedagogy of childhood. Discussions of theory of compensation, psychological induction, learning, and various other phenomena. Lectures, with motion-picture demonstrations of environmental changes in child behavior and development. B, I. 3 s.h.

 MR, ADAMS

RELIGION

- S103. The Prophets of the Old Testament.—In this course a study is made of the history and nature of prophecy, with particular attention being given to the message of the outstanding pre-exilic literary prophets. B, I. 3 s.h.

 MR MYRES
- S116. The Teachings of Jesus.—An interpretation of the teachings of Jesus as recorded in the Synoptic Gospels. C, I. 3 s.h. Mr. Myers
- S281. The Nature and Early Development of Religion.—Introduction to the early history of religion, the beliefs and practices of the more primitive peoples, and the religious life of the ancient world. B, I. 3 s.h. Mr. Cannon
- S284. Ideas of the Future Life and Ethics in the Religions of the World.

 —The conception of the future life and ethical ideals and practice in the religions of the world. A, I. 3 s.h.

 MR. CANNON
- S291. Christian Ethics.—Historical and systematic study of Christian conception of the moral life and its problems. (Not open to enrollment by students who have had S204 prior to 1941.) *C, I.* 3 s.h. Mr. H. S. Smith
- S398. Seminar in Christian Ethics.—A critical study of selected problems. A, I. 3 s.h. Mr. H. S. Smith

The following courses will be given in the Junaluska School of Religion, Lake Junaluska, North Carolina, July 21 to August 30, 1941:

S319. The Life and Letters of Paul.	Mr. K. W. CLARK
S320. Apocalyptic Literature.	Mr. K. W. Clark
S323. The Christian Conception of the Church.	Mr. Outler
S328. Current Theology.	Mr. Outler
S335. The Church in America.	Mr. Garber
S338. Methodism.	Mr. Garber

S361. The Educational Work of the Church.

Mr. Maynard

S362. Leadership Training for Christian Student Work.

Mr. Beimfohr

S381. Missions in the Modern World.

MR. E. T. CLARK

S386. Missionary Promotion.

MR. E. T. CLARK

S391. Philosophy of Religion.

Mr. Benton

For the work at Junaluska credits of three semester hours per course, not to exceed a maximum of six semester hours during the six-weeks term, are allowed qualified students toward the A.B. and B.D. degrees. For admission students should have the equivalent of senior standing in a standard college.

For bulletin and other information, address Professor Paul N. Garber

For bulletin and other information, address Professor Paul N. Garber, Director Junaluska School of Religion, Duke University, Durham, N. C.

Note.—The instructional staff of the Junaluska School of Religion is as follows:

PAUL NEFF GARBER, A.B., A.M., Ph.D.; Professor of Church History and Director of Junaluska School of Religion, Duke University.

HERMAN N. BEIMFOHR, A.B., A.M., B.D.; Director of Wesley Foundations,

Southern California-Arizona Conference.

JOHN KEITH BENTON, A.B., B.D., Ph.D.; Dean of School of Religion, Vanderbilt University.

ELMER TALMAGE CLARK, A.B., M.A., B.D., S.T.D., LL.D.; Assistant Secretary, Board of Missions of the Methodist Church.

KENNETH WILLIS CLARK, A.B., B.D., Ph.D.; Assistant Professor of New Testament, Duke University.

Donald M. Maynard, A.B., B.D., Ph.D.; Professor of Religious Education,

Scarritt College.

ALBERT COOK OUTLER, A.B., B.D., Ph.D.; Assistant Professor of Historical Theology, Duke University.

SOCIOLOGY

Attention is called to the fact that course S101 is a prerequisite to all other courses in the Department.

S101. General Sociology.—An introduction to the scientific study of social life; its origin, evolution, and organization as illustrated by the study of a number of concrete social problems. This course is prerequisite to all other courses in sociology. Section 1, A, I; Section 2, C, I, II. 3 s.h. Mr. Root

S205. Social Pathology.—A study of the causes, extent, significance, and constructive treatment of the principal forms of pathology in modern society: poverty, physical defectiveness, malnutrition, mental deficiency, mental disease, undirected leisure activities, and unstandardized commercial recreation, alcoholism, prostitution, vagrancy, and delinquency. B, II. 3 s.h. Mr. Root

S206. Criminology.—A study of the original tendencies of man and the problem of socializing these tendencies; the relation of physical and mental defectiveness and untoward influence in the home and neighborhood to crime; the development of criminological theory and procedure, emphasizing penal and reform methods, and especially modern methods of social treatment and prevention of crime. A, I. 3 s.h.

Mr. Jensen

S212. Child Welfare.—A study of heredity and environment as factors in personality development; infant conservation; welfare responsibilities of the school, emphasizing the physical and mental well-being of the child, play, and compulsory and industrial education; child labor, diagnosis and treatment of delinquency; care of the dependent and neglected child; child-caring agencies, public and private; and a community program of child welfare. B, I. 3 s.h.

MR. JENSEN

- S220. Rural Sociology.—A study of the societies developed by people who settle the land and exploit it for a livelihood. The institutions peculiarly rural are the farm family, the peasant village, the ranch, and the plantation. In this course, special attention is given to the plantation and the rural problems of the South. A, I. 3 s.h.

 MR. THOMPSON
- S231. Cultural Anthropology.—A basic course, summarizing the findings of science up to date on the evolution of culture, the problems of human progress, past and future, and the relationship of man to the universe as revealed in the data of prehistory, ethnology, and culture history. Emphasis upon the evolution of race, technology, standards of living, the family, religion, science, and social engineering. *C, II.* 3 s.h.

 MR. HART
- S242. Marriage and the Family.—A course presenting the findings of science to date on the fulfillment of personality in relation to courtship, sex, relations to one's parents, marriage, and child rearing. The newly revised edition of *Personality and the Family*, by Hornell and Ella Hart, will be used as a text, with collateral readings and research projects. *A, II.* 3 s.h.

Mr. Hart

S340. The Sociology of the South.—Special problems in race relations, urban and rural life, etc. D, I. 3 s.h. Mr. Thompson

SPANISH

S1. Elementary Spanish.—Pronunciation; essentials of grammar to include the regular conjugations and more common irregular verbs; early reading of simple prose; dictation. A, C, I (first three weeks). 3 s.h.

Mr. Bridgers

- S2. Elementary Spanish.—Continuation of course S1; completion of regular and irregular verbs, the subjunctive mood; dictation; composition; reading of cultural material and stories of easy grade. A, C, I (second three weeks).

 3 s.h. Mr. Bridgers
- S3. Intermediate Spanish.—Systematic grammar review; dictation, drill on verb forms; study of high frequency idioms; reading of novels and plays of medium difficulty. A, II. 3 s.h.

 MR. HASBROUCK
- S4. Intermediate Spanish.—Rapid reading and study of modern novels and plays for content, with minimum of translation. One standard work will be read in foreign edition. *C, II.* 3 s.h. Mr. Hasbrouck
- S65. Introduction to Modern Spanish Literature.—Study of representative masterpieces of nineteenth-century novel and drama, with collateral reading and written report on literary topics. A, I. 3 s.h. Mr. Brown
- S66. Introduction to Spanish Literature of the Golden Age.—Study of representative works in the field of Golden Age novel and drama; rapid survey of literary types and trends; collateral readings and critical reports. This course will include an introductory study of the Don Quijote. C, I. 3 s.h.

 MR. LUNDEBERG
- S260. Advanced Syntax and Composition.—Systematic review of Spanish syntax; free oral and written composition; selected translation assignments; epistolary forms, etc. Conducted mainly in Spanish. Prerequisite: Spanish 65-66. B, I. 3 s.h.

 MR. Reid
- Note.—This course is offered especially for the benefit of teachers of Spanish in secondary schools. In view of the rapidly increasing demand for Spanish in the public schools students expecting to enroll should apply promptly.

S374. Seminar in Modern Spanish Novel.—The Generation of '98; emphasis will be placed on the movement of revolt against the traditional form, style, and esthetique of the older writers. (A course in sequence to Spanish S373, but may be taken without it.) Students preparing a thesis in Spanish this summer should enroll in this course. A, I. 3 s.h. MR. LUNDEBERG

ZOOLOGY

For admission to candidacy for a Master's degree in Zoology, students should have completed an undergraduate major in Zoology (courses in General Science and Botany are not counted as a part of a Zoology major). This normally amounts to about twenty-four semester hours which should be distributed among the various fields of Zoology, and must include Vertebrate Zoology or Comparative Anatomy, Physiology, and Embryology, passed with creditable grades. A candidate should also have completed at least one year of Chemistry. Work for the degree will require eighteen hours in advanced courses in Zoology, and six hours in another department for a minor, in addition to a thesis. Before registration for a degree, students should confer with Dr. George T. Hargitt, Director of Graduate Studies for the Department. Students not candidates for a degree may take courses offered, if they have necessary prerequisites; but may not count them toward a degree until an undergraduate major has been completed.

- S53. Comparative Vertebrate Anatomy.—A study of anatomy and evolution of the organ systems of vertebrates. Lecture and quiz daily, A; laboratory daily, B, C, I (first three weeks). 3 s.h. (w) (Laboratory fcc. \$3.00.)
- S92. General Embryology.—A study of the fundamental principles of embryology as illustrated in the frog, chick, and mammal. Prerequisite: Zoology S53. Lecture and quiz daily, A: laboratory daily, B, C, I (second three weeks). 3 s.h. (w) (Laboratory fee, \$3.00.) Mr. Cunningham
- S209. Heredity and Evolution.—A study of the principles of heredity and their contribution to a modern concept of evolution. Facts and theories of organic evolution including evolution of man. Lectures, conferences, reports, and laboratory. Prerequisite: two years of Zoology. A, C, II. 6 s.h. (Laboratory fee, \$2.00.)

 MR. JOHNSON
- **S222.** Entomology.—A study of anatomy, embryology, physiology, and classification of insects. Readings and reports on literature. Lectures, laboratories, and conferences. Prerequisite: at least one year of Zoology. A. B, C, I. 6 s.h. (Laboratory fec, \$3.00.)
- S353. Research.—Students with sufficient preparation may carry on investigations under direction, for a thesis or otherwise, in the following fields:
 - (a) Embryology and Endocrinology. *I*, *II*.(b) Vertebrate Zoology or Entomology. *I*, *II*. Mr. Cunningham
 - Mr. Gray (c) Cytology. II. Mr. Johnson

(Hours and credit to be arranged. Not more than one semester hour of credit per week full-time schedule, or one semester hour each two weeks for half-time schedule. Laboratory fee, \$3.00 for each three hours of credit; minimum fee, \$2.00.)

Note.—For courses in Zoology offered at the Marine Laboratory, Beaufort, N. C., see next page, this bulletin.

The following courses will be given at the Duke Marine Laboratory at Beaufort:*

S203. Marine Ecology.—Consideration of environments, factors, succession, rhythms, communities, ocean, freshwater, land, intraspecific and interspecific relations, productivity, conservation, problems, etc. II. 6 s.h.

Mr. Pearse

S219. Special Problems.—I, II.

Mr. Bookhout, Mr. Pearse

S274. Marine Zoology, with Special Reference to Invertebrates.—Field trips, ecology, classification, structure, embryology, and habits. I. 6 s.h.

Mr. Bookhout

S353. Research.-I, II.

MR. BOOKHOUT, MR. PEARSE

S355. Biological Seminar.—I, II. 1 s.h. each term.

Mr. BLOMQUIST, Mr. BOOKHOUT, Mr. PEARSE

For particulars as to expense, etc., write the Director of the Summer School or Dr. A. S. Pearse, Zoology Department, Duke University.

^{*} First term: June 10 to July 21; second term: July 22 to August 30.

SUMMER SCHOOL ANNOUNCEMENT

Specimen Application Blank

DIRECTOR OF SUMMER SCHOOL, DUKE S	
Durham, North Carolina	Date
Dear Sir:	
in your Summer School Announcement	
(Signed, full name)	
Be careful to give the following inform	
9	? Total number years
	ame and address of the school in which
_	?
-	? Year of expiration
	were graduated
	ear of leaving high school?
	Are you a graduate?
	ny years of graduate work, if any, have
	epartment(s)?
	have not completed a year of graduate
work, how many summer schools, if an	ny? In what department(s)?
Do you wish room reserved?	Alone?
First term? Second?.	
	Undergraduate?
years of age. Room reservations of g student has been accepted by the Gradu reserved for the first term will remit fr simply indicate whether they desire remitory. The Summer School reserve or registration for courses without assi Note: Students who do not wish	ot open to undergraduates under thirty traduate students are tentative until the late School. Students who wish a room ull amount of room-rent; other students bear in graduate or undergraduate dors the right to cancel room reservation gnment of reason. to submit transcripts of their previous for their summer school credits to some

other institution, should answer the following:

Do you wish blank for statement from your college certifying your present class standing and requesting transfer of your summer school record?.....



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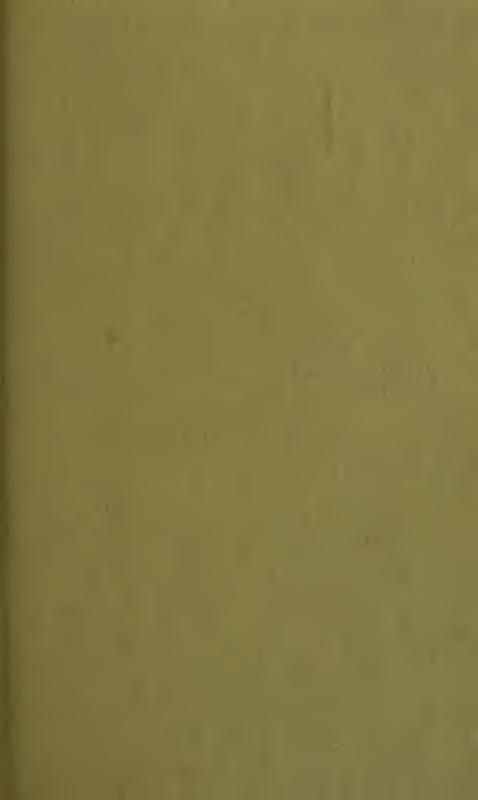
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VOLUME 13 April, 1941

NUMBER 5

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Undergraduate Instruction

(Trinity College, the Woman's College, and the College of Engineering)



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For Bulletin of The School of Law, apply to The Dean of the School of Law, Duke University, Durham, N. C.

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For Bulletin of the Divinity School, apply to *The Dean of the Divinity School*, Duke University, Durham, N. C.

For Bulletin of The School of Forestry, apply to The Dean of the School of Forestry, Duke University, Durham, N. C.

For Bulletin of The College of Engineering, apply to *The Secretary*, Duke University, Durham, N. C.

For Bulletin of The Summer School, apply to The Director of the Summer School, Duke University, Durham, N. C.

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BULLETIN

OF

DUKE UNIVERSITY



UNDERGRADUATE INSTRUCTION

(Trinity College, the Woman's College, and the College of Engineering)

1940-1941

ANNOUNCEMENTS FOR 1941-1942

DURHAM, NORTH CAROLINA 1941



378,756 U5174A

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UNIVERSITY CALENDAR

1941

- June 10 Tuesday, 9:00 A.M.—Registration of students for Summer School, first term.
- June 11 Wednesday, 2:00 P.M.—Instruction begins for Summer School, first term.
- July 4 Friday, Independence Day: a holiday.
- July 19,21 Saturday, Monday—Final examinations for Summer School, first term.
- July 22 Tuesday, 9:00 A.M.—Registration of students for Summer School, second term.
- July 23 Wednesday, 2:00 P.M.—Instruction begins for Summer School, second term.
- Aug. 29-30 Friday, Saturday—Final examinations for Summer School, second term.
- Sept. 11 Thursday, 9:00 A.M.—Dormitories open to Freshmen.
- Sept. 11 Thursday, 8:00 p.m.—Assembly for all entering Freshmen; Freshmen Orientation Program begins.
- Sept. 16 Tuesday—Freshman instruction begins.
- Sept. 16 Tuesday—Registration and matriculation of new students with advanced standing.
- Sept. 17 Wednesday, 11:00 A.M.—Formal opening of the College; registration of matriculated students.
- Sept. 18 Thursday—Instruction for Sophomores, Juniors, and Seniors begins.
- Sept. 18-20 Thursday, 9:00 a.m.-1:00 p.m.; 2:30 p.m.-4:00 p.m.; Friday, 9:00 a.m.-1:00 p.m.; 2:30 p.m.-5:00 p.m.; Saturday, 9:00 a.m.-1:00 p.m.—Registration of graduate students.
- Nov. 20 Thursday—Thanksgiving Day: a holiday.
- Dec. 11 Thursday—Duke University Day.
- Dec. 20 Saturday, 1:00 P.M.—Christmas recess begins.

1942

- Jan. 5 Monday, 8:00 A.M.—Instruction is resumed.
- Jan. 17 Saturday-Mid-year examinations begin.
- Jan. 31 Saturday-Last day for matriculation for second semester.
- Feb. 2 Monday-Second semester begins.
- March 21 Saturday, 1:00 P.M.—Spring vacation begins.
- March 30 Monday, 8:00 A.M.—Instruction is resumed.

- April 18 Saturday—Last day for submitting orations for Wiley Gray Contest.
- April 30 Thursday—Last day for selection of courses for ensuing year.
- May 9 Saturday—Earliest date for beginning of Honors examination.
- May 22 Friday—Final examinations begin.
- June 6 Saturday—Commencement opens; Senior Class Day; meeting of the Board of Trustees.
- June 7 Sunday—President's Address to Graduating Class; Commencement Sermon.
- June 8 Monday—Commencement Address; Alumni-Alumnae Luncheon; Graduating Exercises; Lowering of the Flag by the Graduating Class.

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Year of Election J. F. Bruton, Chairman 1918 Wilson, G. G. Allen 1923 New York,	N. C. N. Y. N. C. N. C. N. C. N. C. N. Y. N. C.		
VIV. VIV. TO VICE TO V			
UNIVERSITY TRUSTEES			
Term Expires December 31, 1941			
J. F. Bruton, Chairman. 1900. Wilson, **T. F. Marr, Vice-Chairman. 1900. Brevard, D. S. Elias. 1929. Asheville, P. H. Hanes. 1912. Winston-Salem, J. L. Horne, Jr. 1934. Rocky Mount, J. A. Long. 1915. Roxboro, S. B. Turrentine. 1893. Greensboro, Earle W. Webb. 1933. New York, James B. Craven 1941. Greensboro,	N. C. N. C. N. C. N. C. N. C. N. C. N. C. N. C.		
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^{*} Died, October 16, 1940. ** Died, December 8, 1940. *** Died, May 1, 1941. **** Died, November 2, 1940.

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Term Expires Decei	mher 31, 1945			
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^{*} Died, September 10, 1940. ** Died, April 30, 1940. *** Died, May 1, 1941.

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^{*} Died, October 16, 1940. ** Elected, January 29, 1941.

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Dean of Men

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Assistant Dean of Men

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Associate Dean of Undergraduate Instruction, Woman's College

1507 West Pettigrew Street

Faculty Apartments, East Campus

^{*} Absent on leave, 1940-1941. ** Resigned, November 1, 1940. *** Appointed, December 1, 1940.

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Dean of Residence, Woman's College, Head of Brown House

Brown House

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HORACK, HUGO CLAUDE, Ph.B., LL.B., LL.D.

2021 Myrtle Drive, West Campus

DAVISON, WILBURT CORNELL, A.B., B.A., B.Sc., A.M., D.Sc., M.D.

Dean of the School of Medicine Hope Valley

PINKERTON, MARGARET ISABEL, (1939) R.N., B.S. Dean of the School of Nursing

Nurses Home

BAKER, BESSIE, R.N., B.S. Dean of the School of Nursing, Emeritus

Baltimore, Md. Russell, Elbert, A.B., A.M., Ph.D., Litt.D.

Dean of the School of Religion

811 Vickers Avenue

GARBER, PAUL NEFF, A.B., A.M., Ph.D. Registrar of the School of Religion

KORSTIAN, CLARENCE FERDINAND, B.S.F., M.F., M.A., Ph.D. Dean of the School of Forestry 1718 Duke University Road

HOLTON, HOLLAND, A.B., J.D. Director of the Summer School

809 Watts Street

West Campus

Coleman, Margaret, A.B., A.M. Recorder, Trinity College

918 Urban Avenue

HUCKABEE, ELLEN HARRIS, A.B., A.M.

Assistant Dean of Residence, Woman's College, Head of Pegram House Pegram House

KENDALL, HELEN MILDRED, A.B. Registrar, School of Law SEABOLT, LOUISE, A.B., A.M.

H-1-C University Apts. 805 Watts Street

Recorder, Woman's College STOCKSDALE, HELEN I. Recorder, School of Medicine

Beverly Apartments

INSTRUCTIONAL STAFF

This alphabetical list includes all members of the various faculties of the University. The date denotes the first year of service.

ADAMS, DONALD KEITH, (1931) A.B., M.A., Ph.D.

Associate Professor of Psychology Cornwallis Road

Addoms, Ruth Margery, (1930) B.A., M.A., Ph.D. Associate Professor of Botany

1003 Lamond Avenue

*Aldridge, Fred Soule, (1922) A.B., A.M. Assistant Professor of Mathematics ALLEN, DON CAMERON, (1938) A.B., Ph.D.

701 Club Boulevard

East Campus

Assistant Professor of English

^{*} Retired, June 30, 1940.

ALTVATER, F. VERNON, (1930) A.B., A.M. Associate in Hospital Administration Route 2, Hillsboro, N. C. ALYEA, EDWIN PASCAL, (1930) S.B., M.D. Associate Professor of Surgery in Charge of Urology Hope Valley Anderson, Charles Roberts, (1930) A.B., A.M., Ph.D. Associate Professor of English 2516 Stuart Drive ANDERSON, LEWIS EDWARD, (1936) B.S., A.M., Ph.D. Instructor in Botany 2016 Myrtle Drive Anderson, William Banks, (1930) A.B., M.D. 503 E. Forest Hills Blvd. Associate Professor of Surgery in Charge of Ophthalmology ARENA, JAY MORRIS, (1933) B.S., M.D. Assistant Professor of Pediatrics 2032 Club Boulevard ARNOLD, RALPH A., (1936) B.A., M.D. Instructor in Otolaryngology and Ophthalmology University Apartments ATWOOD, THEODORE W., (1934) A.B., D.M.D. Allenton Apartments Associate in Dentistry AYCOCK, THOMAS MALCOLM, (1937) B.S., M.S. Assistant Professor of Physical Education 1404 Alabama Avenue BAITY, HERMAN GLENN, (1938) Sc.D. Chapel Hill, N. C. Lecturer in Public Health Baker, Bessie, (1930) R.N., B.S.

Dean of the School of Nursing and Professor of Nursing Education, Emeritus Baltimore, Md. BAKER, LENOX DIAL, (1937) M.D. Assistant Professor of Orthopaedics Hope Valley BAKER, ROGER DENIO, (1930) A.B., M.D. Assistant Professor of Pathology 1111 Watts Street BALDWIN, ALICE MARY, (1923) A.B., A.M., Ph.D. Professor of History and Dean of the Woman's College East Campus BARKER, RUTH ELIZABETH, (1940) A.B., M.S. Instructor in Medical Social Service 1507 W. Pettigrew Street BAUM, PAULL FRANKLIN, (1922) A.B., A.M., Ph.D. Professor of English 112 Pinecrest Road BAYLIN, GEORGE JAY, (1939) A.B., M.D. Instructor in Anatomy and Assistant in Radiology University Apartments BEAL, JAMES ALLEN, (1939) B.S., M.S., Ph.D. 908 West Markham Avenue Professor of Forest Entomology Beard, Joseph W., (1937) B.S., M.D. Hillsboro, N. C. Assistant Professor of Surgery in Charge of Experimental Surgery BERNHEIM, FREDERICK, (1930) A.B., Ph.D. Woodridge Drive, Rockwood Associate Professor of Physiology and Pharmacology BERNHEIM, MARY LILIAS CHRISTIAN, MRS., (1930) B.A., M.A., Ph.D. Woodridge Drive, Rockwood Assistant Professor of Biochemistry

BERRY, EDWARD WILLARD, (1936) A.B., Ph.D. Associate Professor of Geology 1003 N. Gregson Street

BERRY, THOMAS SENIOR, (1935) S.B., M.A., Ph.D. Instructor in Economics

Bigelow, Lucius Aurelius, (1929) S.B., Ph.D. Associate Professor of Chemistry

BIRD, HAROLD CRUSIUS, (1926) Ph.B., C.E. Professor of Civil Engineering

*Black, Martin Lee, Jr., (1930) A.B., M.B.A., C.P.A. Associate Professor of Accounting

1209 Virginia Avenue

100 Vineyard Street

131 Pinecrest Road

135 Pinecrest Road

^{*} Absent on leave, 1941-1942.

BLACKBURN, WILLIAM MAXWELL, (1926) A.B., B.A., M.A. 715 Anderson Street Associate Professor of English *Blomquist, Hugo Leander, (1920) B.S., Ph.D.

Professor of Botany

922 Demerius Street

Boas, Ralph Philip, Jr. (1939) A.B., Ph.D. Instructor in Mathematics Duke University

BOLICH, WILLIAM BRYAN, (1927) A.B., B.A. (Juris.) M.A., B.C.L. Professor of Law Hope Valley

Bonner, Lyman Gaylord, (1937) A.B., Ph.D. Instructor in Physics

Nation Avenue

BOOKHOUT, CAZLYN GREEN, (1935) A.B., A.M., Ph.D. Assistant Professor of Zoology

1307 Alabama Avenue

Bradford, William Ziegler, (1935) B.S., M.D. Assistant Professor of Obstetrics and Gynecology and Director, Outside Obstetric Service

Charlotte, N. C.

Bradsher, Charles Kilgo, (1939) A.B., M.A., Ph.D. Instructor in Chemistry

2219 Club Boulevard

Bradway, John Saeger, (1931) A.B., A.M., LL.B. Professor of Law

Stuart Drive

Branscomb, Bennett Harvie, (1925) A.B., B.A., M.A., Ph.D., Litt.D. Professor of New Testament Language and Literature

Chelsea Circle, Hope Valley

Brice, Ashbel Green, (1939) A.B., A.M. Instructor in English

Duke University

Bridgers, Furman Anderson, (1926) A.B., A.M. Assistant Professor of Romance Languages

1325 Arnette Avenue

Broadhead, Edward Hall, (1933) A.B., A.M., M.M. Instructor in Music

1015 Dacian Avenue 205 Jones Street

Brown, Frances, (1931) A.B., Ph.D. Assistant Professor of Chemistry

410 Buchanan Road

Brown, Frank Clyde, (1909) A.B., A.M., Ph.D. Professor of English

Chapel Hill, N. C.

Brown, Harold William, (1938) A.B., M.S., Sc.D., Dr.P.H., M.D. Professor of Preventive Medicine and Public Health Chapel H Brownell, William Arthur, (1930) A.B., A.M., Ph.D. Professor of Educational Psychology

Hope Valley

Bruinsma, Henry A., (1938) B.M., M.M. Instructor in Music

2104 Sprunt Street

BRYSON, THADDEUS DILLARD, (1928) LL.D. Professor of Law

Hope Valley

CALLAWAY, JASPER LAMAR, (1937) B.S., M.D.
Assistant Professor of Dermatology and Syphilology

907 Second Street

CANNON, JAMES, III. (1919) A.B., A.M., Th.B., Th.M., D.D.

Ivey Professor of History of Religion and Missions 619 Morehead Avenue

CARLITZ, LEONARD, (1932) A.B., A.M., Ph.D. Associate Professor of Mathematics 1410 Markham Avenue

CARPENTER, DAVID WILLIAMS, (1929) A.B.,, A.M., Ph.D. Assistant Professor of Physics

137 Pinecrest Road

CARR, JOHN WINDER, JR., (1926) A.B., A.M., Ph.D. Professor of Education

926 Monmouth Avenue

CARROLL, EBER MALCOLM, (1923) A.B., A.M., Ph.D.

Professor of History

University Apartments

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Professor of Law

Sylvan Road

CHAPMAN, ROBERT G., (1936) B.S. in M.E., M.M.E.

Instructor in Mechanical Engineering 1007 Lakewood Avenue

CHILDS, BENJAMIN GUY, (1924) B.A., M.A.

Professor of Education 1019 West Markham Avenue

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Associate Professor of History

Faculty Apartments

Coile, Theodore Stanley, (1935) B.S.F., M.F., Ph.D.

Assistant Professor of Forest Soils

Uni

University Apartments

Associate Professor of Political Science Conant, Norman Francis, (1935) B.S., A.M., Ph.D.

Cole, Robert Taylor, (1935) A.B., A.M., Ph.D.

Tuscaloosa Forest

Assistant Professor of Bacteriology and Mycology Constant, Frank Woodbridge, (1930) B.S., Ph.D. Assistant Professor of Physics

Legion Avenue

7 Sylvan Road

COOLIDGE, THOMAS BUCKINGHAM, (1935) B.A., Ph.D., M.D.

Associate in Biochemistry University Apartments

Cowper, Frederick Augustus Grant, (1918) A.B., A.M., Ph.D. Professor of Romance Languages 1017 Da

1017 Dacian Avenue

CRAIG, ROBERT LAWRENCE, (1938) B.A., M.D. Instructor in Neurology

919 Monmouth Avenue

Craven, Erle Bulla, Jr., (1937) A.B., M.D. Instructor in Medicine

Winston-Salem, N. C.

CRISPELL, RAYMOND S., (1933) A.B., M.D.

Associate Professor of Neuropsychiatry

Myrtle Drive, West Campus

Crum, Mason, (1930) A.B., Ph.D.
Assistant Professor of Biblical Literature
Culbreth, Sarah Elizabeth, (1938) A.B., A.M., Ph.D.

801 Third Street

Anderson Street

Instructor in Zoology
**Cunningham, Bert, (1916) B.S., M.S., Ph.D.
Professor of Biology

1200 Markham Avenue

DANN, WILLIAM JOHN, (1934) B.S., Ph.D.

Associate Professor of Physiology and Nutrition

1016 Sycamore Street

Davis, Gifford, (1930) A.B., A.M., Ph.D. Assistant Professor of Romanee Languages

2015 Wa Wa Avenue

DAVISON, WILBURT CORNELL, (1927) A.B., B.A., B.Sc., M.A., D.Sc., M.D.

Professor of Pediatrics and Dean of the School of Medicine Hope Valley

Dees, John Essary, (1939) B.S., M.D. Associate in Urology

University Apartments

Dees, Susan Coons, (1939) A.B., M.S., M.D. Instructor in Pediatrics

University Apartments

Delaplane, Walter Harold, (1934) A.B., A.M., Ph.D.

Assistant Professor of Economics 214 Swift Avenue

^{**} Absent on leave, 1940-1941.
*** Absent on leave, first semester, 1941-1942.

DE VYVER, FRANK TRAVER, (1935) A.B., A.M., Ph.D. Associate Professor of Economics 8 Sylvan Road DICK, MACDONALD, (1932) B.A., M.A., M.D. Associate in Medicine, Physiology, and Pharmacology Hope Valley Dow, Marie, Mme., (1934) L. ès L., M.A. Instructor (Part-time) in French 1411 Arcadia Street Dow, NEAL, (1934) A.B., M.A., Ph.D. Instructor in Romance Languages 1411 Arcadia Street Dressel, Francis George, (1929) B.S., M.S., Ph.D. Instructor in Mathematics Route 1, Box 106, Durham DUBS, HOMER HASENPFLUG, (1937) A.B., A.M., B.D., Ph.D. Acting Professor of Philosophy 2415 Club Boulevard DUKE, KENNETH LINDSAY, (1940) A.B., Ph.D. Instructor in Anatomy 2035 Englewood Avenue EADIE, GEORGE SHARP, (1930) M.A., M.B., Ph.D. Professor of Physiology and Pharmacology Hope Valley EAGLE, WATT WEEMS, (1930) A.B., M.D. Associate Professor of Surgery in Charge of Otolaryngology 804 Anderson Street Easley, Eleanor Beamer, (1934) B.A., M.A., M.D. Instructor in Obstetrics and Gynecology Guess Road *Easley, Howard, (1930) A.B., M.A., Ph.D. Assistant Professor of Education Guess Road EDWARDS, CHARLES WILLIAM, (1898) A.B., A.M., M.S. 406 Buchanan Road Professor of Physics EITEMAN, WILFORD J., (1937) A.B., A.M., Ph.D. Assistant Professor of Economics 126 Pinecrest Road ELLIOTT, WILLIAM WHITFIELD, (1925) B.A., M.A., Ph.D. 1404 Arnette Avenue Professor of Mathematics ELLWOOD, CHARLES ABRAM, (1930) Ph.B., Ph.D., LL.D. Professor of Sociology Pinecrest Road Epperson, Jesse Harrison, (1930) B.S. Instructor in Preventive Medicine and Public Health 1601 Hermitage Court ERICKSON, CYRUS CONRAD, (1937) B.S., B.M., M.D. Instructor in Pathology University Apartments EVERETT, JOHN WENDELL, (1932) A.B., Ph.D. Assistant Professor of Anatomy 2511 University Drive FARMER, WILLIAM DEMPSEY, (1939) A.B., M.D. Instructor in Otolaryngology and Ophthalmology University Apartments FERGUSON, ARTHUR BOWLES, (1939) A.B., Ph.D. Instructor in History 1104 Watts Street Ferguson, George Burton, (1937) M.S. (Med.), M.D. Instructor in Bronchoscopy Beverly Apartments FINKELSTEIN, HAROLD, (1931) B.S., M.D. Assistant Professor of Surgery Erwin Apartments FITZGERALD, WILLIAM STONE, (1935) A.B., A.M. Instructor in English

3 Powe Apartments, 603 Watts Street Forbus, Wiley Davis, (1930) A.B., M.D. Professor of Pathology Hope Valley

Fox, Herbert Junius, (1940) M.D. Instructor in Medicine Duke Hospital

FUGATE, ROBERT CARSON, (1938) M.D. Instructor in Otolaryngology and Ophthalmology Duke Hospital

^{*} Absent on leave, first semester, 1941-1942.

Myrtle Drive, West Campus

1030 West Trinity Avenue

1005 Monmouth Avenue

212 Watts Street

Hope Valley

Duke Hospital

122 Pinecrest Road

211 Faculty Apartments

GARBER, PAUL NEFF, (1924) A.B., A.M., Ph.D.

*Gardiner, Ann Henshaw, (1930) R.N., B.S., M.S. Assistant Professor of Nursing Education

GARDNER, CLARENCE ELLSWORTH, JR., (1930) A.B., M.D.

GATES, ARTHUR MATHEWS, (1909) A.B., A.M., Ph.D.

GIBSON, WILLIAM MARION, (1934) A.B., A.M., Ph.D.

GERGEN, JOHN JAY, (1936) A.B., M.A., Ph.D.

Professor of Church History

Associate Professor of Surgery

Gunter, June U., (1938), A.B., M.D. Instructor in Pathology

Assistant Professor of Fine Arts

Professor of Zoology

HALL, FRANK GREGORY, (1926) A.B., A.M., Ph.D.

Assistant Professor of Latin

Professor of Mathematics

Assistant Professor of Political Science 2014 Wilson Street **GILBERT, ALLAN, (1920) B.A., A.M., Ph.D. Professor of English 516 Carolina Circle GILBERT, KATHARINE EVERETT, (1930) A.B., A.M., Ph.D. Professor of Philosophy 516 Carolina Circle GILLIN, JOHN, (1941), A.B., Ph.D. Associate Professor of Anthropology Duke University GLASSON, WILLIAM HENRY, (1902) Ph.B., Ph.D., LL.D. Professor of Political Economy and Social Science, Emeritus 710 Buchanan Road Gohdes, Clarence, (1930) A.B., A.M., Ph.D. Professor of English 1001 Lamond Avenue GOTAAS, HAROLD BENEDICT, (1938) B.S., M.S., S.M. Instructor in Public Health Chapel Hill, N. C. GRAHAM, WILLIAM ALEXANDER, (1939) A.B., M.D. Instructor in Obstetrics and Gynccology Beverly Apartments GRAVES, ROBERT WILLIAMS, (1936) B.S., M.A., M.D. Assistant Professor of Neurology Cornwallis Road GRAY, IRVING EMERY, (1930) B.S., M.S., Ph.D. Associate Professor of Zoology 124 Pinecrest Road Greene, Walter Kirkland, (1928) A.B., A.M., Ph.D.
Professor of English and Dean of Undergraduate Instruction Myrtle Drive, West Campus Greenhill, Maurice H., (1940) A.B., M.D. Associate in Neuropsychiatry Duke Hospital ***Greenwood, Joseph, (1930) A.B., A.M., Ph.D. Assistant Professor of Mathematics 1314 Norton Street Gross, Paul Magnus, (1919) B.S., A.M., Ph.D. William Howell Pegram Professor of Chemistry Hope Valley Grout, Julia Rebecca, (1924) A.B., M.S. 207 Jones Street Assistant Professor of Physical Education, Woman's College GROVES, ERNEST RUTHERFORD, (1938) A.B., B.D., Research Professor of Sociology at the University of North Carolina Lecturer on Sociology, second half-year

HALL, LOUISE, (1931) B.A., S.B. in Architecture, Brevet d'Art de la Sorbonne

*Absent on leave, second semester, 1940-1941. Resigned, effective June 30, 1941.
*** Absent on leave, second semester, 1941-1942.
*** Absent on leave, 1941-1942.

HALL, SNOWDEN COWMAN, (1937) A.B., M.D.

Instructor in Medicine

Danville, Va.

HALL, WILLIAM HOLLAND, (1915) A.B., A.M., B.C.E., M.S.C.E.

Professor of Engineering and Dean of the College of Engineering

1015 Dacian Avenue

HAMBLEN, EDWIN CROWELL, (1931) B.S., M.D. Associate Professor of Obstetrics and Gynecology

810 Forest Hills Blvd.

Hamilton, Earl Jefferson, (1927) B.S., A.M., Ph.D. Professor of Economics

1015 Demerius Street

HAMILTON, WILLIAM BASKERVILLE, JR., (1936) A.B., A.M., Ph.D. Instructor in History 2009 Per

2009 Pershing Street

HANES, FREDERIC MOIR, (1930) A.B., A.M., M.D.

Florence McAlister Professor of Medicine 2127 Myrtle Drive, West Campus

HANSEN-PRÜSS, OSCAR CARL EDVARD, (1930) A.B., M.D.

Associate Professor of Medicine 3 Surry Road, Hope Valley

HARGITT, GEORGE THOMAS, (1930) Ph.B., A.M., Ph.D., Sc.D. Professor of Zoology

811 Watts Street

HARRAR, ELWOOD SCOTT, (1936) B.S., M.S., Ph.D. Associate Professor of Wood Technology

1402 Alabama Avenue

HARRELL, GEORGE THOMAS, JR., (1938) B.A., M.D. Instructor in Medicine
HARRIS, JEROME SYLVAN, (1936) A.B., M.D.

708 Buçhanan Blvd.

Associate in Pediatrics and Biochemistry HART, DERYL, (1930) A.B., A.M., M.D.

mistry 907 Second Street

D.

Duke University Road and Highway 751

Professor of Surgery Duke Univers HART, HORNELL NORRIS, (1938) A.B., M.A., Ph.D. Professor of Sociology

HASBROUCK, FRANCIS MAHLON, (1935) A.B., Ph.D.

Randolph Road

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2020 Pershing Street

Assistant Professor of Romance Languages
HATLEY, CHARLES CLEVELAND, (1917) A.B., A.M., Ph.D.

1005 Homer Street 708 Buchanan Road

Professor of Physics
HAUSER, CHARLES ROY, (1929) B.S., M.S., Ph.D.
Assistant Professor of Chemistry

1020 Rose Hill Avenue

Havens, Ralph Murray, (1938) A.B., M.B.A. Instructor in Accounting

1106 Arnette Avenue

Hebb, Malcolm Hayden, (1938) A.B., Ph.D. Instructor in Physics

132 Pinecrest Road

HENDRIX, JAMES PAISLEY, (1938) B.S., M.A., M.D. Associate in Medicine

144 Pinecrest Road

HERRING, HERBERT JAMES, (1924) A.B., A.M.
Assistant Professor in Speech and Dean of Men

Myrtle Drive, West Campus

HETHERINGTON, DUNCAN CHARTERIS, (1930) A.B., M.A., Ph.D., M.D.

Associate Professor of Anatomy Hope Valley

HICKMAN, FRANKLIN SIMPSON, (1927) A.B., S.T.B., A.M., Ph.D.

Professor of Preaching and the Psychology of Religion and

Dean of the Chapel

823 Bu

823 Buchanan Rd.

HICKSON, ARTHUR OWEN, (1929) A.B., A.M., Ph.D.

Assistant Professor of Mathematics 208 Legion Avenue, Tuscaloosa Forest

HILL, DOUGLAS, (1931) A.B., M.A., Ph.D. Assistant Professor of Chemistry

Dixon Road

HITCH, JOSEPH M., (1938) A.B., M.S., M.D. Instructor in Dermatology and Syphilology Chapel Hill, N. C. HOBBS, MARCUS EDWIN, (1935) A.B., A.M., Ph.D. 11 Powe Apartments, Buchanan Road Instructor in Chemistry HOLLINSHEAD, WILLIAM HENRY, (1930) B.A., M.S., Ph.D. · 1003 Urban Avenue Assistant Professor of Anatomy HOLTON, HOLLAND, (1912) A.B., J.D.

Professor of the History and Science of Education and 809 Watts Street Director of the Summer School Hoover, Calvin Bryce, (1925) A.B., Ph.D., Litt.D.

Professor of Economics and Dean of the Graduate School of.

Arts and Sciences 1702 Duke Uni 1702 Duke University Road HORACK, HUGO CLAUDE, (1930) Ph.B., LL.B., LL.D. Professor of Law and Dean of the School of Law 2021 Myrtle Drive, West Campus Hubbell, Jay Broadus, (1927) A.B., A.M., Ph.D. Professor of English Pinecrest Road IRVING, WILLIAM HENRY, (1936) B.A., B.A. (Oxon.), M.A., Ph.D. Professor of English 207 Legion Avenue JEFFERS, KATHERINE R., (1937) A.B., A.M., Ph.D. 1507 West Pettigrew Street Assistant Professor of Zoology

JENSEN, HOWARD EIKENBERRY, (1931) A.B., A.M., B.D., Ph.D.

143 Pinecrest Road Professor of Sociology

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JOHNSON, CHRISTOPHER, (1930) A.B., M.D. Assistant Professor of Medicine 1417 W. Pettigrew Street

Jones, Robert Randolph, Jr., (1930) A.B., M.D. Assistant Professor of Surgery

1105 Watts Street

JONES, THOMAS T., (1937) A.B., M.D. Instructor in Medicine 1919 Club Boulevard

JORDAN, ARCHIBALD CURRIE, (1925) A.B., A.M.
Assistant Professor of English Pinecrest Road, Corner U. S. Highway No. 751 JORDAN, BRADY RIMBEY, (1927) Litt.B., Ph.D.

Professor of Romance Languages KEECH, JAMES MAYNARD, (1931) A.B., A.M., Ph.D. Instructor in Economics

117 Pinecrest Road

Nation Avenue

KEMP, EDWARD H., (1940) A.B., Ph.D. Assistant Professor of Psychology

1403 Oakland Avenue

KEMP, MALCOLM D., (1937) M.D. Instructor in Neuropsychiatry KEMPNER, WALTER, (1934) M.D.

Pine Bluff, N. C.

Assistant Professor of Medicine KLEIN, JAMES RAYMOND, (1930) A.B., Ph.D. Instructor in Biochemistry

Washington Duke Hotel 924 Green Street

KOHN, HENRY IRVING, (1937) A.B., Ph.D. Associate in Physiology and Pharmacology

907 Second Street

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1718 Duke University Road KRAMER, PAUL JACKSON, (1931) A.B., M.Sc., Ph.D.

Associate Professor of Botany 2251 Cranford Road Kraybill, Edward K., (1939) B.S. in E.E.

Instructor in Electrical Engineering

113 Watts Street

Krummel, Charles Albert, (1922) Ph.B., Ph.M., Ph.D. Professor of German 2118 Englewood Avenue

Landon, Charles Edward, (1926) A.B., A.M., Ph.D. Assistant Professor of Economics

1001 West Trinity Avenue

*Lanning, John Tate, (1927) A.B., A.M., Ph.D. Associate Professor of History

Hope Valley

LAPRADE, WILLIAM THOMAS, (1909) A.B., Ph.D. Professor of History

1108 Monmouth Avenue

LATTY, ELVIN REMUS, (1937) B.S., J.D., J.Sc.D. Professor of Law

2016 Wilson Street

Lemert, Ben Franklin, (1930) B.Sc. in Bus. Admin., M.A., Ph.D.

Assistant Professor of Economic Geography 123 Pineer

123 Pinecrest Road

LEONARD, HENRY SIGGINS, (1937) A.B., A.M., Ph.D. Assistant Professor of Philosophy

107 Pinecrest Road

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2020 Wilson Street

Lewis, Leroy, (1935) A.B., A.M. Instructor in Speech

1517 North Duke Street

LINEBARGER, PAUL MYRON ANTHONY, (1937) A.B., M.A., Ph.D. Assistant Professor of Political Science London, Arthur Hill, Jr., (1932) B.S., M.D.

1306 B Street

Instructor in Pediatrics

502 Morehead Avenue

London, Fritz, (1938) Ph.D.
Professor of Theoretical Chemistry

1308 Markham Avenue

Löwenbach, Hans, (1940) M.D. WENBACH, HANS, (1940) M.D.

Assistant Professor of Neuropsychiatry and Physiology

University Apartments

LOWNDES, CHARLES LUCIEN BAKER, (1934) A.B., LL.B., S.J.D. 2016 Club Boulevard

LUND, JOHN JORGENSEN, (1939) A.B., Ph.D., Certificate of Librarianship Librarian 1015 Gloria Avenue

*Lundeberg, Olav K., (1931) A.B., A.M., Ph.D. Associate Professor of Romance Languages

127 Pinecrest Road

LUNDHOLM, HELGE (1930) Fil. Kand., Fil. Lic., Ph.D. Professor of Psychology

803 Second Street

LYMAN, RICHARD S., (1940) B.A., M.D. Professor of Neuropsychiatry McBryde, Angus, (1931) B.S., M.D.

Hope Valley

Assistant Professor of Pediatrics

1522 Hermitage Court

McCain, Paul Pressly, (1933) A.B., M.D. Assistant Professor of Medicine

Southern Pines, N. C.

McCloy, Shelby Thomas, (1927) A.B., M.A., B.A., B.Litt., Ph.D. Vineyard Street, Tuscaloosa Forest Assistant Professor of History

McCrea, Forrest Draper, (1930) B.S., M.S., Ph.D. Associate Professor of Physiology and Pharmacology

1023 Demerius Street

McDermott, Malcolm, (1930) A.B., LL.B. Professor of Law

East Campus

McDonald, Alexander Donald, (1936) A.B., M.F.A. Assistant Professor of Fine Arts

University Apartments

^{*} Absent on leave, second semester, 1941-1942.

McLarty, Furman Gordon, (1933) A.B., B.A., A.M., Ph.D. Hillsboro, N. C. Instructor in Philosophy MAGGS, DOUGLAS BLOUNT, (1930) A.B., J.D., S.J.D. Hope Valley Professor of Law Manchester, Alan Krebs, (1929) A.B., A.M., Ph.D. Assistant Professor of History and Dean of Freshmen Myrtle Drive, West Campus Manning, Isaac Hall, Jr., (1939) A.B., M.D. Instructor in Medicine University Apartments MARTIN, DONALD STOVER, (1932) A.B., M.D. Associate Professor of Bacteriology and Associate in Medicine 2208 Pershing Street MARTIN, ELSIE WILSON, MRS. (1930) A.B., M.S. Professor of Dietetics 206 Faculty Apartments, East Campus MARTIN, JEAN MCNUTT, (1940) B.S., M.D. Assistant Physician of Student Health and Instructor of Pediatrics Faculty Apartments MAUGHAN, WILLIAM, (1931) B.S., M.F. Associate Professor of Forest Management 5 Sylvan Road MAXWELL, WILLIAM CARY, (1930) A.B., A.M., Ph.D. Assistant Professor of German 142 Pinecrest Road MEIER, Otto, Jr., (1934) B.S. in E.E., M.S., E.E. Assistant Professor of Electrical Engineering 916 Monmouth Avenue MENEFEE, ELIJAH EUGENE, JR., (1940) B.S. in Med., M.D. Instructor in Medicine and Bacteriology 2102 Sprunt Street MILAM, DANIEL FRANKLIN, (1939) A.B., M.P.H., M.D. Associate in Preventive Medicine and Public Health Duke Hospital *Miles, Edward Roy Cecil, (1929) B.S., M.A., Ph.D. 1028 Gloria Avenue Assistant Professor of Mathematics MITCHELL, FRANK KIRBY, (1926) A.B., A.M. Associate Professor of English East Campus Moore, Thomas H., (1940) B.S. Instructor in Economics 1200 W. Markham Avenue Morgan, George Allen, Jr., (1936) Ph.B., A.M., Ph.D. Associate Professor of Philosophy 713 Anderson Street MORGAN, JASPER EUGENE, (1936) B.S., A.M., Ph.D. Instructor in Roentgenology and Physiology University Apartments **Mouzon, James Carlisle, (1932) B.A., Ph.D. Assistant Professor of Physics 132 Pinecrest Road MUELLER, JULIA WILKINSON, MRS., (1939) B.M., M.M. Instructor in Music Faculty Apartments ***MULLER, MARY HOEN, (1930) R.N., Anes. Instructor in Anesthesia Duke Hospital ****Myers, Hiram Earl, (1926) A.B., S.T.B., S.T.M. Professor of Biblical Literature 141 Pinecrest Road Nelson, Ernest William, (1926) A.B., A.M., Ph.D. Associate Professor of History

Hope Valley

Manchester Apartments

812 Anderson Street

Associate in Medicine * Resigned, June 30, 1941.

NEURATH, HANS, (1938) Ph.D.

Assistant Professor of Biochemistry

NICHOLSON, WILLIAM MCNEAL, (1935) A.B., M.D.

^{**} Absent on National Defense leave.

*** Died, January 22, 1941.

**** Absent on leave, first semester, 1941-1942.

*NIELSEN, WALTER McKINLEY, (1925) B.S. in E.E., Ph.D. 139 Pinecrest Road Professor of Physics NORDHEIM, LOTHAR WOLFGANG, (1937) Ph.D. Professor of Physics 904 Buchanan Road Norfleet, Grizzelle M., (1938) A.B., B.S., M.A. Supervisor of the Spastic Clinic Faculty Apartments NORTON, J. W. Roy, (1938) A.B., M.P.H., M.D. Lecturer in Preventive Medicine and Public Health Chapel Hill, N. C. Oosting, Henry John, (1932) A.B., M.S., Ph.D. 2528 University Drive, Rockwood Assistant Professor of Botany ORGAIN, EDWARD STEWART, (1934) M.D. Associate in Medicine Beverly Apartments **Ormond, Jesse Marvin, (1923) A.B., B.D., D.D. Professor of Practical Theology 301 Watts Street OUTLER, ALBERT C., (1938) A.B., A.M., B.D., Ph.D. Assistant Professor of Historical Theology 2122 Englewood Avenue PAGÁN, FRANCISCO MARIANO, (1941) B.S., M.S., Ph.D. Exchange Professor of Botany Duke University PARKER, HAROLD TALBOT, (1939) A.B., Ph.D. Instructor in History University Apartments PATTERSON, KARL BACHMAN, (1920) A.B., A.M. Assistant Professor of Mathematics 1024 Monmouth Avenue PATTON, LEWIS, (1926) A.B., Ph.D. Associate Professor of English 1511 W. Pettigrew Street Pearse, Arthur Sperry, (1926) B.S., A.M., Ph.D. Professor of Zoology Chelsea Circle, Hope Valley PEARSE, RICHARD LEHMER, (1935) A.B., M.D. Instructor in Obstetrics and Gynecology 1003 Lamond Avenue PEPPLER, CHARLES WILLIAM, (1912) A.B., Ph.D. Professor of Greek 406 Buchanan Road PEELE, TALMAGE LEE, (1939) A.B., M.D. Instructor in Anatomy University Apartments PERLZWEIG, WILLIAM ALEXANDER, (1930) B.S., A.M., Ph.D. Hope Valley Professor of Biochemistry Perry, Harold Sanford, (1932) A.B., Ph.D. Assistant Professor of Botany 1222 Sixth Street Persons, Elbert Lapsley, (1930) A.B., M.D. 723 Anderson Street Associate in Medicine and Dermatology Petry, Ray C., (1937) A.B., A.M., Ph.D. Assistant Professor of Church History 128 Pinecrest Road ***Pigage, Leo Charles, (1938) M.E., M.M.E. Instructor in Mechanical Engineering 903 Sixth Street PINKERTON, MARGARET ISABEL, (1939) R.N., B.S. Nurses Home Professor of Nursing and Dean of the School of Nursing PLUMMER, DAVID EDWIN, (1938) M.D. 1506 Oakland Avenue Instructor in Syphilology Poston, Mary Alverta, (1930) A.M. Instructor in Bacteriology 512 Watts Street

POTEAT, MARY, (1935) A.B., A.M., Ph.D.

Instructor in English

103 Faculty Apartments

1106 Watts Street

Professor of Law

POTEAT, JAMES DOUGLASS, (1936) A.B., LL.B., J.S.D.

^{*} Absent on National Defense leave.

** Absent on leave, second semester, 1941-1942.

*** Resigned, February 1, 1941.

*QUYNN, DOROTHY MACKAY, MRS., (1930) A.B., A.M., Docteur de l'Univer-

Nation Avenue

Bland Apartments

Charlotte, N. C.

1011 Gloria Avenue

133 Pinecrest Road

208 Watts Street

Chapel Hill, N. C.

Manchester Apartments

Myrtle Drive, West Campus

Woodridge Drive, Rockwood

Woodridge Drive, Rockwood

PRATT, JOSEPH GAITHER, (1937) A.B., A.M., Ph.D.

PROCTOR, ARTHUR MARCUS, (1923) A.B., A.M., Ph.D.

*QUYNN, WILLIAM ROGERS, (1930) B.A., M.A., Ph.D. Assistant Professor of Romance Languages Wood

RANKIN, ROBERT STANLEY, (1927) A.B., A.M., Ph.D.

RANKIN, WILLIAM WALTER, JR., (1926) B.E., M.A.

Lecturer in Preventive Medicine and Public Health

RATCHFORD, BENJAMIN ULYSSES, (1928) B.S., A.M., Ph.D. Associate Professor of Economics

RANEY, RICHARD BEVERLY, (1934) A.B., M.D.

Instructor in Psychology

Professor of Education

Associate in Orthopaedics

Professor of Mathematics

REAMER, I. THOMAS, (1931) Ph.G.

RAYMOND, MARY LOIS, (1931) A.B., M.A. Assistant Professor of Romance Languages

Professor of Political Science
RANKIN, WATSON SMITH, (1930) M.D.

Assistant Professor of History

sité de Paris

University Apartments Instructor in Pharmacy Reed, Frederick Jerome, (1935) M.E., M.S. Assistant Professor of Mechanical Engineering 2203 Englewood Avenue REEVES, ROBERT JAMES, (1930) A.B., M.D. Associate Professor of Radiology 1010 Monmouth Avenue Reid, John Turner, (1939) A.B., A.M., Ph.D. Assistant Professor of Romance Languages 2613 University Drive REQUE, PAUL GERHARD, (1940) M.D. Instructor in Medicine, Dermatology and Syphilology 2023 Sprunt Street RHINE, JOSEPH BANKS, (1927) B.S., M.S., Ph.D. Professor of Psychology 908 W. Club Boulevard RICHARDSON, WILLIAM P., (1938) B.S., M.P.H., M.D. Instructor in Preventive Medicine and Public Health Chapel Hill, N. C. ROBERT, JOSEPH CLARKE, (1938) A.B., A.M., Ph.D. Assistant Professor of History 1102 B Street Roberts, John H., (1931) A.B., Ph.D. Associate Professor of Mathematics Legion Avenue, Tuscaloosa Forest ROBERTS, LOUIS CARROLL, (1933) B.S., M.D. Instructor in Urology 1013 Dacian Avenue ROGERS, ROBERT S., (1937) A.B., A.M., Ph.D. Professor of Latin 1008 W. Trinity Avenue ROPP, THEODORE, (1938) A.B., A.M., Ph.D. Instructor in History 1009 Lakewood Avenue ROSBOROUGH, RUSKIN RAYMOND, (1925) A.B., A.M., Ph.D., Docteur en philologie classique, Louvain Professor of Latin 410 Watts Street Rose, Jesse Lee, (1936) A.B., M.A., Ph.D. Instructor in Latin Salmon Apartments, 1025 Monmouth Avenue

Rosenau, Milton Joseph, (1938) M.D.

Lecturer in Preventive Medicine and Public Health

^{*} Absent on leave, 1941-1942.

Instructional Staff	25
Ross, Norman F., (1937) D.D.S. Instructor in Dentistry	1021 Dacian Avenue
Ross, Robert Alexander, (1930) B.S., M.D. Associate Professor of Obstetrics and Gynecology	818 Anderson Street
Rowe, Gilbert Theodore, (1928) A.B., S.T.D., D.D., I Professor of Christian Doctrine	Litt.D. 150 Pinecrest Road
Ruffin, Julian Meade, (1930) A.B., M.A., M.D. Associate Professor of Medicine	816 Anderson Street
Russell, Elbert, (1926) A.B., A.M., Ph.D., Litt.D. Professor of Biblical Interpretation and Dean of the School of Religion	811 Vickers Avenue
Sanders, C. Richard, (1937) B.Ph., M.A., Ph.D. Assistant Professor of English	1004 Urban Avenue
SANDERS, PAUL HAMPTON, (1936) A.B., LL.B. Associate Professor of Law	1208 Watts Street
*Saylor, John Henry, (1928) A.B., A.M., Ph.D. Assistant Professor of Chemistry	707 Club Boulevard
Scates, Douglas Edgar, (1939) A.B., Ph.D. Associate Professor of Education	600 N. Gregson Street
Schiebel, Herman Max, (1939) A.B., M.D. Instructor in Surgery	401 Watts Street
Schulze, William, (1940) B.S., M.D. Instructor in Medicine	1001 Lamond Avenue
Schumacher, Francis X., (1937) B.S. Professor of Forestry	6 Sylvan Road
Seeley, Walter James, (1925) E.E., M.S. Professor of Electrical Engineering	1005 Urban Avenue
Serrell, Morton A., (1941) M.E. Instructor in Mechanical Engineering	206 Swift Avenue
**Shands, Alfred Rives, Jr., (1930) B.A., M.D. Associate Professor of Surgery in Charge of Ortho	Wilmington, Del.
Sharp, D. Gordon, (1939) B.S., M.A., Ph.D. Research Associate in Experimental Surgery	Legion Avenue
Shears, Lambert Armour, (1927) A.B., A.M., Ph.D. Instructor in German	917 Green Street
Shepherd, Harold, (1939) A.B., J.D. Professor of Law	Cole Mill Road
SHIELDS, JOHN HERMAN, (1926) A.B., A.M. Assistant Professor of Accounting	1315 Vickers Avenue
Shipman, George A., (1938) A.B., Ph.D. Associate Professor of Political Science	140 Pinecrest Road
SIMPSON, WILLIAM HAYS, (1930) A.B., A.M., Ph.D. Instructor in Political Science	1408 Dollar Avenue

SMITH, DAVID TILLERSON, (1930) A.B., M.D.

Professor of Bacteriology and Associate Professor of Medicine Hope Valley

SMITH, HILRIE SHELTON, (1931) A.B., Ph.D., D.D., Litt.D.

Professor of Christian Ethics and Religious Education 1523 Hermitage Court SMITH, O. NORRIS, (1937) B.A., M.D.

Instructor in Medicine Greensboro, N. C. SMITH, ROBERT SIDNEY, (1932) A.B., A.M., Ph.D. Assistant Professor of Economics Cranford Road

^{*} Absent on leave, first semester, 1941-1942. ** Absent on leave, 1937—.

115 Faculty Apartments, East Campus

Instructor in Education and Associate Dean of Undergraduate

SMITH, RUTH SLACK, MRS., (1927) A.B., A.M.

SMITH, SUSAN GOWER, MRS., (1930) A.B., M.A.

Instruction, Woman's College

Associate in Medicine Hope Valley SNIVELY, MARY HELEN, (1930) R.N., Anes. Instructor in Anesthesia Horton Road Snyder, Laurence Hasbrouck, (1940) B.S., M.S., Sc.D. Visiting Lecturer in Medical Genetics SPENCE, BESSIE WHITTED, MRS., (1929) A.B., A.M., B.D. Instructor in Biblical Literature Hope Valley Spence, Hersey Everett, (1918) A.B., A.M., B.D., D.D.
Professor of Biblical Literature and Religious Education Hope Valley *Spengler, Joseph John, (1934) A.B., M.A., Ph.D. Professor of Economics Cranford Road SPONER, HERTHA, (1935) Ph.D. Professor of Physics 813 Second Street Springer, John Young, (1936) A.B., M.B.A. Assistant Professor of Economics University Apartments SPRUNT, DOUGLAS HAMILTON, (1932) B.S., M.S., M.D. Associate Professor of Pathology Hope Valley STEVENS, JOSEPH BLACKBURN, (1940) B.S., M.D. Instructor in Medicine Duke Hospital STILL, BAYRD, (1938) A.B., A.M., Ph.D. Assistant Professor of History Erwin Apartments STINESPRING, WILLIAM FRANKLIN, (1936) B.A., M.A., Ph.D. Associate Professor of Old Testament 1107 Watts Street STRONG, FRANK R., (1941) B.A., LL.B. Visiting Professor of Law 416 Carolina Circle STUART, CHRISTOPHER, JR., (1936) M.D. Instructor in Urology 921 Monmouth Avenue Sugden, Herbert Wilfred, (1929) A.B., A.M., Ph.D. Assistant Professor of English University Apartments SUITT, ROBERT BURKE, (1940) M.D. Associate in Neuropsychiatry University Apartments SULLIVAN, DANIEL JOSEPH, (1940) M.D. Instructor in Neuropsychiatry Duke Hospital SUNDERLAND, ELIZABETH READ, (1939) A.B., A.M., Ph.D.

SWETT, FRANCIS HUNTINGTON, (1930) A.B., M.A., Ph.D. Professor of Anatomy Hope Valley SYDNOR, CHARLES SACKETT, (1936) A.B., Ph.D.

Professor of History

Instructor in Fine Arts

116 Pinecrest Road TAYLOR, ALTON ROBERT, (1939) B.S., Ph.D.

Research Associate in Surgery TAYLOR, HAYWOOD MAURICE, (1930) B.S., M.S., Ph.D. Associate Professor of Biochemistry and Toxicology

University Drive, Rockwood

THEISS, ERNEST S., (1939) B.S. in M.E., M.S. Instructor in Mechanical Engineering

THOMAS, JOSEPH MILLER, (1930) A.B., Ph.D. Professor of Mathematics

Cranford Road

Southgate Dormitory

2023 Club Boulevard

University Apartments

^{*} Absent on leave, first semester, 1941-1942.

2112 Englewood Avenue

THOMAS, WALTER LEE, JR., (1937) A.B., M.A., M.D. Assistant Professor of Obstetrics and Gynecology 415 Carolina Circle THOMPSON, EDGAR T., (1935) A.B., A.M., Ph.D. Associate Professor of Sociology 138 Pinecrest Road Thomson, Roy Bertrand, (1938) B.S., M.F., Ph.D. Associate Professor of Forest Economics University Apartments TRUESDALE, JAMES N., (1930) A.B., A.M., Ph.D. Instructor in Greek Duke University Tucker, Gordon H., (1939) B.S., M.S., Ph.D. Instructor in Zoology Chapel Hill, N. C. UPCHURCH, SAMUEL EARLE, (1933) B.A., M.D. Instructor in Surgery Duke Hospital VAIL, CHARLES ROWE, (1939) B.S. in E.E. Instructor in Electrical Engineering 1007 W. Trinity Avenue VANCE, MARY HENDREN, MRS., (1926) A.B., A.M. 208 Watts Street Assistant Professor of English VOLLMER, CLEMENT, (1926) A.B., A.M., Ph.D. 2114 Myrtle Drive, West Campus Professor of German VON BECKERATH, HERBERT, (1935) Ph.D. Professor of Economics and Political Science Hope Valley Vosburgh, Warren Chase, (1928) B.S., M.S., Ph.D. 2319 Englewood Avenue Professor of Chemistry WACKERMAN, ALBERT EDWARD, (1938) B.S., M.F. Professor of Forest Utilization Dover Road, Hope Valley Wade, Wallace, (1931) A.B. Director of Physical Education, Trinity College Myrtle Drive, West Campus WALLACE, WILLIAM STUART, (1938) A.B., M.D. Associate in Radiology Devon Road, Hope Valley Walton, Loring Baker, (1929) A.B., Lic. ès L. Associate Professor of Romance Languages 2235 Cranford Road WANNAMAKER, WILLIAM HANE, (1904) A.B., A.M., Litt.D. Professor of German and Dean of the University and of Trinity College Myrtle Drive, West Campus WARD, CHARLES EUGENE, (1927) A.B., A.M., Ph.D. Assistant Professor of English 110 Pinecrest Road WATERS, CHESTER H., Jr., (1938) B.A., M.D. Duke Hospital Instructor in Orthopaedics WATSON, JOHN D., (1939) A.B., B.S. in C.E., M.S., Sc.D. Assistant Professor of Civil Engineering 913 S. Duke Street WATSON, KARL BRANTLEY, (1936) B.S., A.B., A.M., Ph.D. Instructor in Education 1705 G Street Watson, Richard L., Jr., (1939) A.B., Ph.D. Instructor in History 1104 Watts Street WAY, VERNON ELGIN, (1930) A.B., A.M., M.A. Assistant Professor of Greek 909 Gregson Street Webb, Albert Micajah, (1903) A.B., A.M. Professor of Romance Languages 1017 Trinity Avenue Welfling, Weldon, (1936) A.B., A.M., Ph.D. Instructor in Economics Pickett Road West, Alfred Thurber, (1930) B.S., A.M. Assistant Professor of English 1112 Georgia Avenue WHARTON, GEORGE WILLARD, JR., (1939) B.S., Ph.D.

Instructor in Zoology

White, Marie Anne, Mrs., (1930) A.B., A.M.

Assistant Professor of English Chelsea Circle, Hope Valley
WHITE, NEWMAN IVEY, (1919) A.B., A.M., Ph.D. Professor of English Chelsea Circle, Hope Valley
WIDGERY, ALBAN GREGORY, (1930) B.A., M.A. Professor of Philosophy St. Catherine, Pinecrest Road
WILBUR, RALPH SYDNEY, (1933) B.S. in M.E., M.E.
Professor of Mechanical Engineering 1317 Arnette Avenue
WILLIAMS, JAMES WESLEY, (1937) A.B., B.S. in C.E. Instructor in Civil Engineering 206 Swift Avenue
WILSON, FREDERICK ELIPHAZ, (1923) A.B., A.M. Assistant Professor of German 1020 Demarius Street
WILSON, JOHN WOODROW, (1940) B.S., Ph.D. Instructor in Zoology 905 Monmouth Avenue
WILSON, ROBERT NORTH, (1910) A.B., M.S. Professor of Chemistry 822 Third Street
WILSON, ROBERT RENBERT, (1925) A.B., A.M., Ph.D., LL.D. Professor of Political Science 717 Anderson Street
Wolf, Frederick Adolphus, (1927) A.B., A.M., Ph.D. Professor of Botany 924 Urban Avenue
Woodhall, Barnes, (1937) A.B., M.D. Cole Mill Road
Assistant Professor of Surgery in Charge of Neuro-surgery
Woody, Robert Hilliard, (1929) Ph.B., A.M., Ph.D. Assistant Professor of History 2534 University Drive
YATES, ANNE, (1933) A.B., A.M., Ph.D. Assistant Professor of Biochemistry Cornwallis Road
Young, Edward Hudson, (1923) A.B., A.M. Assistant Professor of Romance Languages 13 Beverly Apartments
*Young, Paul G., (1937) B.Ph., A.M. Instructor in German 1306 N. Mangum Street
Youngstrom, Karl Arden, (1937) A.B., M.A., Ph.D.
Instructor in Anatomy Fir Street Zener, Karl Edward, (1928) Ph.B., A.M., Ph.D.
Associate Professor of Psychology Sparger Road
D M F (1020) D M
BATCHELDER, MARION FRANCIS, (1930) R.N. Instructor in Nursing Administration and Supervision Duke Hospital
CARPENTER, JAMES M., (1938) Ph.D. Instructor (Part-time) in English 406 Buchanan Road
CHAFFIN, NORA CAMPBELL, (1936) A.B., A.M. Instructor (Part-time) in History Bassett House
Colloms, Lester Hubert, (1939) A.B., B.D. Instructor (Part-time) in Religion 1018 Monmouth Avenue
Dowling, Arthur Joseph, Jr., (1939) A.B. Instructor (Part-time) in English Duke University
HARRIS, THERMAN WINFRED, (1940) A.B., M.S.
Instructor (Part-time) in Education 2003 Club Boulevard LAYNE, MARY ELIZABETH, (1940) B.S., M.S.
Instructor (Part-time) in Mathematics Duke University
I nymp O W (1040) A D A M

Duke University

LEVER, OSCAR WILLIAM, (1940) A.B., A.M.
Instructor (Part-time) in Biblical Literature

^{*} Resigned, June 30, 1941.

Martin, Willard Edgar, Jr., (1937) A.B., A.M., Ph.D. Instructor (Part-time) in English 81 812 Wilkerson Avenue MORWITZ, ERNEST M., (1939) D. Jur. Teaching Fellow in Hellenistic Religions 2110 Wilson Street PRATT, LANIER WARD, (1940) A.B., A.M. Instructor (Part-time) in Romance Languages 1002 Lamond Avenue Rein, William Christopher, (1940) A.B., M.Ed. Instructor (Part-time) in Education 905 Sixth Street ROBINSON, ALICE BRADFORD, (1939) A.B., M.A. Instructor (Part-time) in Fine Arts

WADE, LUTHER IRWIN, (1940) A.B. Instructor (Part-time) in Mathematics 1206 Markham Avenue 901 Sixth Street

INDUSTRIAL RESEARCH ASSOCIATES

DARKIS, FREDERICK RANDOLPH Chemistry 1211 Alabama Avenue B.S., M.S., Ph.D., University of Maryland McLean, Ruth Chemistry 2 Powe Apartments A.B., Woman's College of the University of North Carolina; A.M., Duke University

INSTRUCTIONAL ASSISTANTS

ADKINS, TROGLER FRANCIS, (1937) M.D. Assistant in Obstetrics and Gynecology BEARD, DOROTHY WATERS, (1938) R.N.

Research Assistant in Experimental Surgery

Bennett, Ruth Bruce, (1940) A.B., M.M.S. Assistant in Medical Social Service Branning, William Sterry, (1940) B.S., M.D.

Assistant in Biochemistry Bryson, Edwin Constant, (1931)
Assistant in Legal Aid Clinic

CARROLL, R. CHARMAN, (1939) A.B., M.D. Assistant in Psychiatry

CAYER, DAVID, (1939) B.A., M.D. Assistant in Medicine

CHRISTENSON, JAMES ANDREAS, (1940) A.B., Ph.D.

Psychologist Cooper, Gerald Rice, (1939) A.B., M.A., Ph.D. Research Assistant in Biochemistry

CRAIG, JANE STANLEY, (1938) A.B. Research Assistant in Anatomy

CREADICK, ROBERT NOWELL, (1939) B.A., M.D. Assistant in Obstetrics and Gynecology

Cuyler, W. Kenneth, (1938) B.A., M.A. Research Fellow in Endocrinology

ERICKSON, JOHN OTTO, (1939) B.S. Research Assistant in Biochemistry

GILBERT, GEORGE GAYLAND, (1939) B.S., M.D. Assistant in Student Health

GILL, ATTICUS JAMES, (1940) M.D. Assistant in Pathology

GOODMAN, ELIZA DOROTHY, (1934) R.N., Anes. Assistant in Anesthesia

HAINES, CHARLES EDGAR, JR., (1938) M.D. Assistant in Urology

Duke Hospital Hillsboro, N. C.

University Apartments

Duke Hospital

1023 Sycamore Street Duke Hospital

Duke Hospital

Legion at Vineyard Street 2105 Chapel Hill Road

308 Oakwood Avenue

Duke Hospital

Randolph Road

Duke Hospital

Duke Hospital

Duke Hospital

407 Cook Street

Duke Hospital

HALL, Collins Fremont, (1939) B.S., M.D. Assistant in Otolaryngology and Ophthalmology	Duke Hospital
HAMM, ALMA SMITH, (1937) R.N., Anes. Assistant in Anesthesia	409 Cook Street
HANDLER, PHILIP, (1939) B.S., M.S., Ph.D. Assistant in Physiology and Nutrition	University Apartments
HARDYMON, PHILIP BARBOUR, (1940) B.S., M.D. Assistant on Private Medical Service	University Apartments
HEMPHILL, JAMES EUGENE, (1940) B.A., M.D. Assistant in Radiology	2103 Pershing Street
Hollister, William Fredwin, (1938) M.D. Assistant in Surgery	Duke Hospital
Horack, Harold Maclachlan, (1940) M.D. Assistant in Medicine	2021 Sprunt Street
Hough, Joseph David, (1938) B.A., M.D. Assistant on Private Medical Service	University Apartments
Huff, Jesse W., (1940) B.S. Assistant in Biochemistry	Duke Hospital
Johnson, Lawrence Clifford, (1940) B.A. Fellow in Sociology	Duke Hospital
Kamin, Henry, (1940) B.S. Research Assistant in Biochemistry	Duke Hospital
Kerby, Grace P., (1940) B.S. Research Assistant in Pathology	Duke Hospital
KNIGHT, ALTON J., (1938) A.B., LL.B. Assistant in Legal Aid Clinic	1404 North Duke Street
Lambeth, Samuel Summerfield, (1939) B.S., M.D. Assistant in Medicine	Duke Hospital
Lee, Albert Francis, (1938) B.S., M.D. Assistant in Obstetrics and Gynecology	218 Legion Avenue
LINCICOME, ROBERT CARL, (1939) M.D. Assistant in Medicine	Duke Hospital
LOVELL, DURWARD LEE, (1937) M.D. Assistant in Surgery 11	15 W. Chapel Hill Blvd.
MADDEN, JOHN HENRY MILLER, (1939) A.B., M.D. Assistant in Medicine	Duke Hospital
Mason, Mary Locher, Mrs., (1931) Diploma in Fine Teachers College, Columbia University	Arts,
Assistant in Education Rout Miller, Charles Henderson, (1934) A.B., LL.B.	te No. 2, Durham, N. C.
Assistant in Legal Aid Clinic Morton, Henry George, (1940) B.S., M.D.	2208 Woodrow Street
Assistant in Pediatrics MUNROE, COLIN ALEXANDER, (1939) B.S., M.D.	926 Dacian Avenue
Assistant in Medicine ORMANDY, LASZLO, (1940) M.D.	Duke Hospital
Fellow in Spastic Clinic	Duke Hospital
Ould, Carlton Lee, (1939) A.B., M.D. Assistant in Radiology	Duke Hospital
PARRISH, ALBERT ARCHER, (1939) A.B., M.D. Assistant in Student Health	1002 Lamond Avenue
Pettus, William Henry, Jr., (1937) B.S., M.D. Assistant in Surgery	2316 W. Club Blvd.

PHILLIPSON, ELMA O., (1938) A.B., M.A. Assistant in Medical Social Service

209 Buchanan Road

Pullen, Roscoe Leroy, (1940) B.A., B.M., M.D.

Clinical Fellow, Endocrine Division, Obstetrics and Gynecology

Duke Hospital

SARETT, HERBERT PAUL, (1939) B.A., M.S. Assistant in Biochemistry

House HH, Duke University

SCHANHER, PAUL WELSTEAD, JR., (1939) B.A., M.D. Assistant in Surgery

Duke Hospital

Schlayer, Clotilde, (1937) Ph.D. Research Assistant in Medicine

Washington Duke Hotel

Scott, Virgil, C., (1940) B.S., M.D. Assistant on Private Medical Service SEALY, WILL CAMP, (1936) B.S., M.D.

Duke Hospital Duke Hospital

Assistant in Surgery SMITH, PRESTON, (1932)

Assistant in Clinical Microscopy

114 E. Seeman Street

STAINBROOK, EDWARD JOHN, (1940) A.B. Psychologist STUBBS, ALLSTON, (1935) A.B., LL.B., LL.M.

1005 Buchanan Road University Apartments

Assistant in Legal Aid Clinic THETFORD, JOSEPH DIMMICK, (1939) M.D. Assistant in Medicine

Duke Hospital

THORNHILL, EDWIN HALE, (1939) M.D.

Assistant in Otolaryngology and Ophthalmology TRENT, JOSIAH CHARLES, (1939) A.B., M.D.

Duke Hospital 2318 W. Club Blvd.

Assistant in Surgery VAN ARSDALL, CONDIT BREWER, JR., (1938) A.B., M.D.

Duke Hospital

Assistant in Medicine WEEKS, KENNETH DURHAM, (1939) B.S., M.D. Assistant in Medicine

Duke Hospital

WELLS, WARNER LEE, (1938) M.D. Assistant in Surgery WHILDIN, JAMES GRIFFITH, (1939) B.S., M.D.

University Apartments

Research Fellow, National Cancer Institute, in Radiology 208 Atlas Street WILLIAMS, PAUL LELAND, (1938) M.D. 218 Legion Avenue

Assistant in Dermatology and Syphilology WILSON, DAVID A., (1939) B.A., M.A., M.D. Assistant in Surgery

Duke Hospital

WILSON, JAMES ALLEN, (1940) B.A., M.D. Assistant in Endocrinology

1112 B Street

Wise, Nancy Bowman, (1937) A.B., M.D.

James A. Greene Research Fellow in Medicine University Apartments WYVELL, DOROTHY BRYAN, (1940) A.B., M.D.

Assistant in Pediatrics Duke Hospital

INSTRUCTIONAL ASSISTANTS IN PHYSICAL EDUCATION TRINITY COLLEGE

CALDWELL, HERSCHEL, (1930) Instructor in Physical Education; Coach of Freshman Sports

1023 Markham Avenue

CAMERON, EDMUND McCullough, (1926) A.B.

Instructor in Physical Education; Head Coach of Varsity Basketball; Assistant Coach of Football

Hope Valley

CARD, WILBUR WADE, (1902) A.B. 1110 Minerva Avenue Instructor in Physical Education CHAMBERS, ROBERT LUTHER, (1933) B.S. in Ed. Instructor in Physical Education; Head Coach of Varsity Track 2633 Chapel Hill Road *CLARK, MORRIS McCAULEY, (1939) A.B. Assistant Instructor in Physical Education 206 Watts Street Coombs, John Wesley, (1929) B.S. Instructor in Physical Education; 101 House DD, Craven Quadrangle Head Coach of Varsity Baseball CRICHTON, MARSHALL, (1931) Hope Valley Instructor in Golf DEAN, DAYTON ROBERT, (1931) A.B. Business Manager of Athletics University Apartments FOGLEMAN, WILLIAM HARRY, (1935) A.B. Instructor in Physical Education; Coach of Tennis University Apartments GERARD, KENNETH, (1931) B.S. Instructor in Physical Education; Director of Intramural Sports 1209 North Duke Street HAGLER, ELLIS, (1930) A.B. Instructor in Physical Education; Coach of Varsity Golf; Assistant Coach of Football 220 Forest Wood Drive HILL, DAN WINFIELD, JR., (1939) A.B. Assistant in Physical Education 206 Watts Street Lewis, Hubert Murry, (1937) B.S.
Assistant Instructor in Physical Education and Track Duke University Montford, Robert, (1940) Assistant Instructor in Physical Education Duke University

Persons, Walter, (1930)
Instructor in Physical Education; Coach of Swimming;
Coach of Lacrosse 104 Erwin Apartments

STANLEY, DENNIS KEITH, (1939) A.B.E., M.Ed. Instructor in Physical Education; Assistant

Coach of Football

WARREN, ADDISON, (1931) A.B. Assistant Instructor in Physical Education Beverly Apartments 115 Dillard Street

INSTRUCTIONAL ASSISTANTS IN PHYSICAL EDUCATION THE WOMAN'S COLLEGE

**Bookhout, Elizabeth Circle, Mrs., (1932) A.B., M.S. Instructor in Physical Education 1307 Alabama Avenue Dowling, Mary Louise, (1937) B.S. Instructor in Physical Education and Recreation

LEWIS, MARTHA MODENA, (1933) B.S. Instructor in Physical Education and Dance ***Moize, Vivian, (1940) A.B.

Instructor in Physical Education ROGERS, HARRIET ROWLEY, MRS., (1939) B.S., M.A. Instructor in Physical Education and Hygiene

SMITH, NATALIE, (1940) B.A., M.S. Instructor in Physical Education

F-1-A University Apartments

306 Erwin Apartments

306 Erwin Apartments

814 Second Street

306 Erwin Apartments

^{*} Resigned, February 1, 1941. ** Second semester, 1940-41. *** First semester, 1940-1941.

THE UNIVERSITY LIBRARIES

UNIVERSITY LIBRARY

LUND, JOHN JORGENSEN, A.B., Ph.D., Certificate of Librarianship University Librarian 1015 Gloria Avenue

Breedlove, Joseph Penn, A.B., A.M. Librarian Emeritus

407 Watts Street

TAUBE, MORTIMER, A.B., Ph.D., Certificate of Librarianship
In Charge of Book Selection and Acquisition University Apartments NUERMBERGER, GUSTAVE ADOLPH, A.B., A.M., Ph.D., Certificate of Librarianship

Head Reference Librarian

1604 B Street

PRATT, ELLIS CARL, A.B., A.B. in L.S. In Charge of Technical Processes

1104 Buchanan Boulevard

GREENE, JANE, A.B., B.A. in L.S. Head Order Librarian MERRITT, GERTRUDE, A.B.

1004 West Trinity Avenue

Head Serials Librarian Wescott, Mary, A.B., B.S. Head Cataloger

1907 Club Boulevard 1008 Monmouth Avenue

OYLER, HELEN, A.B., B.S. in L.S. Head Circulation Librarian

210 West Trinity Avenue

NUERMBERGER, Mrs. GUSTAVE A., A.B., A.M., Ph.D., Certificate of L.S. Curator of Manuscripts 1604 B Street

APSLER, ALFRED, Ph.D. Reference Librarian

819 Third Street

BEVERS, MRS. EARL Assistant in Charge, Work Room

830 Wilkerson Avenue

BURCH, VELLA JANE, A.B., A.M., B.A. in L.S. Cataloger COVINGTON, LENA, A.B., A.B. in L.S.

316 N. Elizabeth Street

Classifier Cox, Virginia E., A.B. 1008 Monmouth Avenue

Librarian in Charge, Chemistry Library Douglas, Elinor, A.B., M.A.
Assistant, Periodical Room

1017 Gloria Avenue 2114 Myrtle Drive

DUKE, MRS. KENNETH L.

2035 Englewood Avenue

Secretary to the University Librarian Frazier, Rose Marie, B.S., B.M., A.B.

1107 Watts Street

Librarian in Charge, Graduate Reading Room FREY, ELLEN, B.A., M.A. Reference Librarian

905 Second Street

HIX, EDWIN JONATHAN, A.B. Circulation Librarian

127 Exum Street

HOPKINS, BERTHA, B.S., A.B. in L.S. Serials Cataloger

No. 11 Trinity Apartments

JAFFÉ, LILLIAN DOROTHY Junior Cataloger

704 Roxboro Street

JETT, FLORENCE LEIGH, A.B., A.B. in L.S.	
Bibliographer	1011 Monmouth Avenue
Kimball, Mrs. Ralph, A.B., B.S. in L.S. Cataloger	2112 Wilson Street
KLEIN, MRS. J. RAYMOND, Certificate of Libraria Serials Cataloger	nship 924 Green Street
LAND, PHOEBE, A.B., B.S. Cataloger	No. 11 Trinity Apartments
McClintick, Mrs. Keith Assistant in Charge, Physics-Math. Library	1801 Lakewood Avenue
McMillan, Louise Assistant, Serials Department	14 Dollar Avenue
MAULTSBY, KATHLEEN, A.B. Assistant, Serials Department	1314 Broad Street
Monier, Eugenie Librarian in Charge, Engineering Library	1020 Monmouth Avenue
Montague, Margaret, A.B. Assistant, Catalog Department	206 Parrish Place
Murray, Agnes M., A.B. Bibliographer	Faculty Apartments
OATHOUT, MELVIN, A.B., A.B. in L.S.	
Librarian in Charge, Undergraduate Reading	No. 6 Bickett Apartments
Oathout, Mrs. Melvin, B.S. Documents Cataloger	No. 6 Bickett Apartments
PARKER, WIXIE ELMA, A.B., B.S. in L.S. Librarian in Charge, Periodical Room	No. 7 Powe Apartments
Picken, Mrs. Robert L., Jr., A.B. Assistant, Serials Department	2002 Club Boulevard
Poole, Mary Elizabeth, A.B., B.A. in L.S. Librarian in Charge, Documents Room	407 Watts Street
Powers, Leonard, A.B. Assistant in Charge, Biology Library	HH-023, Duke University
RAMAGE, MARY ALLENE, A.B., B.A. in L.S. Newspaper Librarian	1003 Monmouth Avenue
Roberts, Mrs. Wesley Assistant, Catalog Department	609 Burch Avenue
Rose, Mrs. Jesse, A.B. Reference Librarian	1025 Monmouth Avenue
Shuford, Mary Opal, A.B. Junior Cataloger	805 Sixth Street
Siegel, Mrs. Paul, A.B. Assistant, Order Department	222 Morris Street
STALLCUP, MARY JANE, B.S., B.A. in L.S.	1017 Gloria Avenue
Cataloger Strickland, Erma	1017 Gioria Avenue
Accessions Librarian Strowd, Anne, A.B.	911 Second Street
Reference Librarian	901 Mangum Street
Tatum, William Gilchrist, Jr., A.B. Circulation Librarian	1200 Markham Avenue
Tilley, Nannie M., A.B., A.M., Ph.D. Assistant Curator of Manuscripts	2313 Club Boulevard

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WOMAN'S COLLEGE LIBR.	ARY
GRIGGS, LILLIAN BAKER, MRS., B.A. in L.S. Librarian	915 Monmouth Avenue
FAUCETTE, MARY ELIZABETH, A.B., A.B. in L.S. Circulation Librarian HARRISON, EVELYN JENNINGS, A.B., B.S. in L.S. Head Cataloger HICKS, MRS. SPEARS, A.B., A.B. in L.S. Reference Librarian HOBGOOD, MRS. BURKE, JR., A.B. Assistant, Circulation Department MURPHY, VIRGINIA BARDWELL, A.B., A.B. in L.S. Cataloger PARKER, ENID, A.B., M.A., B.A. in L.S. Periodicals Librarian LAW LIBRARY ROALFE, WILLIAM ROBERT, LL.B. Librarian	1008 Monmouth Avenue 121 West Seeman Street 2406 Highland Avenue
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FARRAR, JUDITH, A.B., B.S. Librarian

177 Faculty Apartments, East Campus

UNIVERSITY CHAPEL

HICKMAN, FRANKLIN SIMPSON, A.B., A.M., S.T.B., Ph.D.

Dean of the Chapel 823 Buchanan Road

Barnes, James Foster, A.B., A.M. Director of Choral Music

Brees, Anton University Carillonneur Faculty Apartments
2114 Myrtle Drive

Broadhead, Edward Hall, A.B., A.M., M.M. University Organist

Cottingham, W. Thomas, Jr., A.B. Assistant in Religious Activities

1015 Dacian Avenue

Duke University

PHYSICAL EDUCATION AND STUDENT HEALTH

WADE, WALLACE, A.B. Director of Physical Education, Trinity College

GROUT, JULIA REBECCA, A.B., M.S.
Assistant Professor of Physical Education,

Woman's College

SPEED, JOSEPH ANDERSON, M.D. Director of Student Health

MARTIN, JEAN McNutt, B.S., M.D. Physician, Woman's College

PAGE, WRAY RAMSEY, Mrs., (1928) R.N.

Resident Nurse VESTAL, MOZELLE, (1931) R.N. Resident Nurse

West Campus

205 Jones Street

913 Dacian Avenue

Faculty Apartments

East Campus Infirmary

East Campus Infirmary

SOCIAL AND MUSICAL ACTIVITIES

Barnes, Evelyn, B.S. Head of Alspaugh House

BARNES, JAMES FOSTER, MRS. Director of the Woman's College Musical Clubs Faculty Apartments

CHAFFIN, NORA CAMPBELL, A.B., A.M. •

Head of Bassett House

FEARING, ROBERT BEVERIDGE Director of the College Orchestras and Band

FREEMAN, MAY, A.B.

Head of Aycock House

KESTLER, MARY, A.B., A.M. Head of Jarvis House

Pemberton, Mary Norcott, Mrs. Hostess, West Campus Union

TAYLOR, HARRIET, MRS. Head of Giles House Alspaugh House

Bassett House 410 Watts Street

Aycock House

Iarvis House

Kilgo Quadrangle, West Campus

Giles House

Aldridge, Fred Soule, A.B., A.M.
Chaplain of Duke Hospital and Director of the Golden Cross East Campus

UPCHURCH, WALTER McGOWAN, JR., A.B., LL.B. Financial Adviser, Student Activities

Faculty Apartments

FELLOWS AND GRADUATE ASSISTANTS

UNIVERSITY FELLOWS

Name Department Home Address ABBETT, CAROL HOPE History Minneapolis, Minnesota A.B., Macalester College; A.M., University of Minnesota

BENNETT, JOHN BOYCE Religion Durham, North Carolina A.B., Wofford College; B.D., Duke University

CARPER, DORIS VIOLA Education Norfolk, Virginia B.S., Farmville State Teachers College; A.M., Duke University

Mathematics CIVIN, PAUL Buffalo, New York

A.B., University of Buffalo COLLEY, FRANK HARRIS History Washington, Georgia

A.B., A.M., Duke University

DECKER, JOHN PETER Botany B.S., University of Idaho; A.M., Duke University Ione, Washington

DERR, PAUL FRANKLIN Chemistry West Hazelton, Pennsylvania B.S., A.M., Duke University

DIAMOND, STANLEY STUART Political Science Wichita, Kansas A.B., University of Wichita; A.M., Haverford College

DOWNTON, JAMES BERTRAM Buffalo, New York Greek

A.B., University of Buffalo English ELMER, ROBERT WATSON Durham, North Carolina

A.B., Amherst College; A.M., Syracuse University HARDCASTLE, AARON BASCOM Zoology Durham, North Carolina

A.B., A.M., University of Richmond Hudson, Boyd Ellyson, Jr. A.B., Duke University Chemistry Toano, Virginia

LEWIS, HAROLD WALTER Physics Keene, New Hampshire

B.S., Middlebury College; A.M., University of Buffalo McDougall, Kenneth Dougal Zoology Durham, North Carolina Duke University

MASTEN, GEDNEY RUSSELL Economics Tenafly, New Jersey A.B., A.M., Wesleyan University

RICHARDS, JAMES AUSTIN, JR. Physics Oberlin, Ohio A.B., Oberlin College

Russell, Charles Daniel, Jr. Chemistry Niagara Falls, New York B.S., Niagara University; M.S., California Institute of Technology

SCHULTZ, HAROLD History Memphis, Tennessee A.B., Columbia University; A.M., Duke University

SKELL, PHILIP Chemistry Bronx, New York B.S., College of the City of New York

STAINBROOK, EDWARD JOHN Meadville, Pennsylvania Psychology A.B., Allegheny College

English Carmichaels, Pennsylvania TEAGARDEN, LUCETTA JANE A.B., Wilson College; A.M., Duke University

Mathematics Elkin, North Carolina WADE, LUTHER IRWIN, JR. A.B., Duke University

Wood, Frederic Marcus, Jr. Latin Pa A.B., Western Reserve University; A.M., Duke University Painesville, Ohio

Wright, Ernest Baskin Political Science University, Alabama A.B., University of Alabama; A.M., University of Wisconsin

BROOKINGS-DUKE FELLOW

STURM, ALBERT LEE, JR. Political Science Appalachia, Virginia A.B., Hampden-Sydney College; A.M., Duke University

GRADUATE ASSISTANTS

Chemistry Montreal, Quebec, Canada ABRAMOVITCH, BENJAMIN B.S., McGill University

Chemistry Wollaston, Massachusetts

AYRES, ERLE BINGHAM

B.S., A.M., Boston University	Circinistry	Worldston, massacrasetts
BARTON, ELEANOR PHILLIPS A.B., Woman's College of the Un A.M., Columbia University	Zoology iversity of N	Greensboro, North Carolina forth Carolina;
Beck, Lloyd Henry A.B., A.M., Oberlin College	Psychology	Oberlin, Ohio
*Boyer, Charles Chester B.S., St. Bonaventure College; A.	Zoology .M., Duke U:	Scottsville, New York niversity
Brandis, Royall A.B., University of Richmond	Economics	Richmond, Virginia
Brown, Walter Varian A.B., M.S., Brown University	Botany	Lancaster, Massachusetts
Buffinton, Jean A.B., A.M., Mount Holyoke Coll		Williamstown, Massachusetts
CAMPBELL, PHILIP STORER B.S., Bowdoin College	English	Portland, Maine
**Cooke, Russell Yale, Jr. A.B., Duke University	Economics	Charlotte, North Carolina
DIBELER, VERNON HAMILTON B.S., A.M., Duke University	Chemistry	Roselle Park, New Jersey
Douglass, Ann Elizabeth A.B., Swarthmore College	Psychology	New London, Connecticut
EAGER, HOWARD, JR. A.B., Duke University	Psychology	Ft. Sam Houston, Texas
ELLER, MEREDITH FREEMAN A.B., S.T.B., Boston University	Religion	Mapleville, Rhode Island
ERION, GENE LLOYD A.B., Doane College; A.M., Univ	Economics ersity of Wi	Omaha, Nebraska sconsin
FEAGINS, CARROLL SPURGEON A.B., Duke University; A.M., Un	Philosophy niversity of	Clearwater, Florida Michigan
FLEMISTER, LAUNCELOT JOHNSON, JR. A.B., A.M., Duke University	Zoology	Atlanta, Georgia
GARDNER, RALPH A. A.B., A.M., University of Kentuc	Philosophy ky	Somerset, Kentucky
GILMORE, PATRICIA A.B., Smith College; A.M., Duke	English University	Brooklyn, New York
GRUEN, EDWARD DIETRICH A.B., Dartmouth College	Economics	Dayton, Ohio
HAAG, VINCENT HAROLD B.S., Catawba College	Mathematics	Lebanon, Pennsylvania
HALL, MAURICE BARKER B.S., M.S., Brigham Young Unive	Physics ersity	Santaquin, Utah
HARDENDORFF, VICTOR HALL A.B., Amherst College	English N	forth Amherst, Massachusetts
HAYES, WILLIAM ERNEST B.S., Rutgers University; A.M., (Education Columbia Un	Somerville, New Jersey iiversity
Holder, Ray A.B., A.M., University of Mississ	Religion sippi	Lucedale, Mississippi

^{*} Resigned, February 11, 1941. ** Resigned, January 7, 1941.

Durham, North Carolina

FELLOWS AND G	RADUATE AS	SISTANTS 39
Holder, Virginia Lee Smart A.B., Randolph-Macon Woman's Hoopes, Luther Hartman A.B., Catawba College	Latin College; A.M English	Portsmouth, Virginia M., Duke University York, Pennsylvania
HORTON, PAUL BURLEIGH A.B., Kent State University	Sociology	Rootstown, Ohio
HUMM, HAROLD JUDSON B.S., University of Miami	Botany	Coral Gables, Florida
HUMPHREYS, MARY EMILY A.B., Western Maryland College	Botany ; A.M., Duk	Berlin, Maryland e University
Jarnagin, Milton Preston, Jr. A.B., A.M., University of Georgi	Mathematics a	Athens, Georgia
Johnson, Lawrence Clifford A.B., State University of Iowa	Sociology	Iowa City, Iowa
Jones, Jameson Miller A.B., Southwestern; B.D., Louisv	Religion ville Presbyte	Corinth, Mississippi rian Theological Seminary
Jones, Ralph Gray A.B., A.M., Louisiana State Univ	Political Sci ersity	ience Jackson, Mississippi
Koch, Sigmund A.B., New York University; A.M	Psychology I., State Univ	New York, New York versity of Iowa
*Krause, James Barber, II A.B., University of Alabama	Zoology	Williamsport, Pennsylvania
**Lenander, Harlan Edward A.B., Southwestern College	Physics	Lindsborg, Kansas
Levitsky, Ihor Alexander A.B., University of Rochester; A	Philosophy .M., Universi	Rochester, New York ty of Buffalo
LINSCHITZ, HENRY B.S., College of the City of New	Chemistry	New York, New York
LIVINGSTON, ROBERT BLAIR A.B., Colorado College	Botany	Colorado Springs, Colorado
McDougall, Gordon Hosmer B.S., Bowdoin College	Mathematics	Westford, Massachusetts
McGehee, William Overton, Jr. B.S., University of Virginia	Psychology	Kent, Virginia
McIntyre, William Russell B.S., A.M., Northwestern Univer	Sociology sity	Evanston, Illinois
MINNICH, LAWRENCE ARTHUR, JR. A.B., Princeton University	History	Lorain, Ohio
MITCHELL, WILLIAM ALEXANDER	Political Scient	
B.S., Clemson College; A.M., Un:	iversity of No	Clemson, South Carolina orth Carolina
NEEL, SAMUEL REGESTER, JR. A.B., Emory and Henry College	Religion	
Parker, Anne Elizabeth A.B., University of Chattanooga;	French A.M., Duke	Chattanooga, Tennessee University
Patterson, James Reid B.S., Davidson College	Physics	Durham, North Carolina
D 31 C	D .	D 1 17 11 C 11

Botany

PETHICK, MARY GRACE A.B., Duke University

^{*} Second semester only.
** Resigned, January 23, 1941.

	French	Louisville, Kentucky
A.B., Davidson College; A.M., Du		ity
RANDALL, ELMA LOUISE A.B., John B. Stetson University	Zoology	Daytona Beach, Florida
	History uke Univer	Buffalo, New York
REYNOLDS, JOHN BRADLEY A.B., Duke University	Education	Mount Savage, Maryland
Roberg, Jane B.S., University of Washington; A	Physics M Duke	
ROBERTS, HENRY STOUTTE, JR. Z	Zoology	Milledgeville, Georgia
A.B., Mercer University SAXE, LEROY HALLOWELL, JR. Z	Zoology	Shippensburg, Pennsylvania
B.S., Shippensburg State Teachers A.M., University of Pennsylvania		
Schnabel, Margaret Jane Z A.B., Oberlin College	Zoology	Lima, Ohio
*Shannon, Edgar Finley, Jr. A.B., Washington and Lee Univers	English itv	Lexington, Virginia
	History	Livingston, Alabama
SMITH, EDWIN STUDLEY	Chemistry	Augusta, Georgia
D	Economics	Dallas, Texas
A.B., University of Texas	~ .	5 4 5
STARLING, JAMES HOLT A.B., A.M., University of Alabama	Zoology ı	Durham, North Carolina
STEWART, PAUL DEKKER A.B., Hope College; A.M., Duke	Political Sci University	ience Wash. College, Tenn.
	Economics	Atlanta, Georgia
Tompson, Reade Yates B.S., Brown University	Chemistry	Attleboro, Massachusetts
	Economics	Rutherford, New Jersey
	Zoology	Elon College, North Carolina
WILLIAMS, MELVIN JOHN	Sociology	Durham, North Carolina
A.B., B.D., Duke University WILSON, CHARLES CHRISTOPHER B.S., University of Miami	Botany	Miami, Florida
	E SCHOLAR	S
	English	Buffalo, New York
D.C. Indiana University, A.M. III		Canada Titte

Aldridge, Alfred Owen
B.S., Indiana University; A.M.,
Auxier, Charles Carson
A.B., Berea College

**Barnes, Jack Carlisle
A.B., Duke University

Baxter, Joseph Ray
A.B., Berea College

Bradshaw, Catherine Pauline

**History

**Greensboro, North Carolina

**Camp Dix, Kentucky

**Kentucky

**Greek

**Kimball, South Dakota

RADSHAW, CATHERINE PAULINE Greek Kimball, South Dakota A.B., College of St. Teresa; A.M., University of Minnesota

^{*} Second semester only.
** Resigned, February 19, 1941.

rellows and G	RADUATE ASSI	STANTS 41
Bronson, Arthur Harold B.S., Syracuse University	Forestry	Brooklyn, New York
BRYAN, WILLIAM ALFRED A.B., College of Charleston; A.	English M., Duke Univ	Sumter, South Carolina versity
CLEVELAND, LESLIE JOSEPH A.B., Carleton College	History	International Falls, Minn.
Craghead, Frances Ann A.B., Randolph-Macon Woman's	Latin College	Lynchburg, Virginia
*EARLY, BENJAMIN SEISIGER A.B., A.M., University of Virgin	English	Richmond, Virginia
ERWIN, AUREL MANER A.B., Mercer University	French	Macon, Georgia
FAIRES, ROBERT EDGERTON B.S., Ohio University	Physics	Chesterhill, Ohio
Gervin, Spencer Rex B.S., East Tennessee State Teach	Political Scien	nce Johnson City, Tenn.
Goodman, Warren Herbert A.B., Brooklyn College	History	Brooklyn, New York
GOULD, ROBERT KENT A.B., A.M., Duke University	Chemistry	Hamburg, New Jersey
GRASTY, GEORGE MASON A.B., Washington and Lee Unive	German rsity	Lexington, Virginia
HINSHAW, CLIFFORD REGINALD, JR. A.B., High Point College	-	High Point, North Carolina
Hosack, Robert Ewing A.B., College of Wooster; A.M	Political Scien	
KAMIN, HENRY B.S., College of the City of New	Biochemistry	
KIRK, RUSSELL AMOS A.B., Michigan State College	History	Plymouth, Michigan
KNEIPP, JANET PIERCE RETTEW A.B., Duke University	English	Harrisburg, Pennsylvania
Kozlowski, Theodore Thomas B.S., Syracuse University	Forestry	Buffalo, New York
*Massey, Calvin LeRoy B.S., Colorado State College of A.M., Duke University	Forestry Agriculture and	Wheatridge, Colorado Mechanics;
MURDOCH, BERNARD CONSTANTINE B.S., Appalachian State Teachers M. Ed., University of Cincinnati	Education College;	Charlotte, North Carolina
Ogden, John Patton A.B., Princeton University	History	New York, New York
Schaedler, Louis Calvern A.B., Wabash College	English	Racine, Wisconsin
Silk, Leonard Solomon A.B., University of Wisconsin	Economics	Atlantic City, New Jersey
Townsend, Freda Liverant A.B., Duke University	English	York, Pennsylvania
TURNER, PHILIP ALLISON A.B., Hiram College	French	Hiram, Ohio
VONE PAR VENNETH	Philosophy	Grand Rapids Michigan

Vonk, Paul Kenneth Philosophy Grand Rapids, Michigan A.B., Calvin College; A.M., University of Michigan

^{*} Second semester only.

THE COLLEGES

GENERAL STATEMENT

Duke University offers in Trinity College, the Woman's College, and the College of Engineering three academic degrees for undergraduate work: Bachelor of Arts, Bachelor of Science, and Bachelor of Science in Civil, Electrical, or Mechanical Engineering. Ten groups of studies lead to the degree of Bachelor of Arts, and two groups of studies lead to the degree of Bachelor of Science. These groups are designated by Roman numerals in the order in which they are described. For a description of these groups, see the section elsewhere in this catalogue under the topic "Groups of Studies for the Degree of Bachelor of Arts."

TRINITY COLLEGE

Trinity College is the undergraduate college for the men of Duke University and is situated on the West Campus along with the Graduate School of Arts and Sciences, the School of Law, the School of Medicine, the School of Nursing, the School of Forestry, and the School of Religion.

THE WOMAN'S COLLEGE

The Woman's College of Duke University is a college of arts and sciences within the University which provides for the instruction of undergraduate women as Trinity College provides for the instruction of undergraduate men.

The teachers of the College, many of whom teach also in Trinity College, are members of the University Faculty and are selected in cooperation with the several departments of instruction just as in the case of teachers of Trinity College, thus assuring a uniform educational standard. Graduates of the Woman's College, as graduates of all other colleges and schools within the University, receive their degrees from Duke University.

THE COLLEGE OF ENGINEERING

Duke University, through the College of Engineering, offers standard four-year courses in civil, electrical, and mechanical engineering. These departments are housed respectively in Bivins, Asbury, and Branson Buildings. The James H. Southgate Memorial Building, set aside for the housing of engineering students, contains social rooms, recitation rooms, gymnasium, dining room, and kitchen, as well as dormitory facilities.

THE LIBRARIES

The library resources of the University total 600,235 volumes and 637,404 manuscript pieces. Eighty-two foreign and domestic newspapers and 3,289 periodicals are received currently.

The University Library, in which the bulk of the collection is housed, is centrally located on the West Campus. The main Reference and Reading Room on the second floor contains about 6,000 volumes of important reference works. The Undergraduate Reading Room on the first floor, with seats for 180 readers, contains the regular open shelf course reserves and additional books for general collateral reading, the latter available for seven-day loan. This room thus provides an undergraduate reading collection of approximately 5,000 selected volumes. The Documents Room gives students access to the official publications of the federal and state governments. Seniors, honor students, and others undertaking special studies may be admitted to the stacks to facilitate their work. Libraries in the Chemistry, Physics, Biology, Engineering, and School of Religion buildings are a special convenience for students in these fields.

The Woman's College Library, which is one of the dominant units of the Georgian architecture of the East Campus, contains approximately 47,000 volumes. Among these are the books most constantly needed in the undergraduate work of women students. An attractive feature of the Library is the Booklovers' Room, comfortably furnished, where on open

shelves students may find the newest books in various fields.

Undergraduate students also have free access to the library collections of the Medical and Law Schools.

ADMISSION TO TRINITY COLLEGE AND THE WOMAN'S COLLEGE

GENERAL REGULATIONS

Admission to Trinity College and the Woman's College of Duke University is on a selective basis, dependent upon the ability, attainments, and character of the applicant. No student is admitted until the Council on Admissions has received for him a scholastic record from school or college, a certificate of vaccination and of good health, and satisfactory evidence of good character and ability.

UNITS OF ADMISSION

The academic requirements for admission are defined in terms of units. A unit of credit is allowed for a subject of study pursued throughout an academic year at an accredited secondary school, if the course has demanded five recitations a week and the prescribed amount of work has been completed satisfactorily. Credit for fifteen units is required for admission.

The subjects in which this credit may be offered and the maximum amount of credit acceptable in each subject are given in the following table:

UNITS	UNITS
English 4 History and Social Studies 4 Latin 4 Mathematics 4 Spanish 3 French 3 German 3 Greek 3 Commercial Subjects 3 Agriculture 2 Household Economics 2 Wechanical Drawing 2 Woodworking, Forging, and Machine Work 2	Art 1 Botany 1 Chemistry 1 Economics 1 General Biology 1 General Science 1 Music 1 Physical Geography 1 Physics 1 Sociology 1 Zoology 1

For a detailed explanation of the units in the table above, see the definitions as set forth by the Southern Association of Colleges and Secondary Schools and other regional associations.

ADMISSION BY CERTIFICATE

Applicants able to submit certificates of proficiency from accredited schools in subjects accepted for admission to the Freshman Class will be admitted without examination. These certificates must be properly made out on the regular blanks furnished by the University, signed by the principal of the school from which the applicant comes, and presented before

or at the opening of the academic year. The applicant must have completed the course of the school from which he comes.

At least twelve of the fifteen units required for admission must come from the following:

UNITS	UNITS
English	Mathematics 2 to 4 Science 1 to 4

These twelve units must include three in English and two in mathematics. The units in mathematics must include one in algebra and one in plane geometry.

The three additional units necessary to make the required fifteen may come from the list above or from the larger table of units of admission.

ADMISSION BY EXAMINATION

Students who present fifteen units for admission from schools not accredited by the University are required to validate their units by entrance examinations and such other tests as the University may prescribe.

Students who have not the required units in English or in mathematics but who are otherwise acceptable must, before admission, clear this deficiency by examinations.

ADMISSION TO ADVANCED STANDING

Students may be admitted to advanced standing from other approved institutions under the following conditions: all applicants must have fulfilled the equivalent of the requirements for admission to the Freshman Class, must present official certificates of all work done in other institutions, and have honorable dismissal from the institutions they previously attended.

Applicants for advanced standing should present, so far as possible, subjects corresponding to those required at Duke University. Students admitted to advanced standing may not during their first semester elect more than the minimum number of hours required of the class which they enter except by permission of the Dean. Further, in addition to other requirements, a minimum of one full year in residence at Duke University with the satisfactory completion of at least thirty semester-hours of work approved for Seniors, with an average grade of "C," is required of all candidates for the Bachelor's degree.

Students enrolling for the Bachelor's degree who transfer from junior colleges or from four-year colleges not affiliated with the Southern Association, or a similar regional association, are under all circumstances required to continue for at least one semester in Trinity College and in the Woman's College the foreign language they present for minimum graduation requirements.

Students who have transferred from junior colleges or from four-year colleges not affiliated with the Southern Association, or a similar regional

association, must present laboratory notebooks in all science courses that are offered for advanced credit.

Students who have transferred from other colleges must, in order to make their provisional classification final, pass during their first year of residence not less than the equivalent of four year-courses with an average grade of "C" or higher.

FRESHMAN WEEK

The week immediately preceding the opening of college is set aside for the induction of Freshmen. During this period health examinations, psychological tests, and placement tests are given, on the basis of which Freshmen are sectioned in English, mathematics, and foreign languages. The Freshmen are divided into groups for instruction in the use of the Library, in the regulations of the student body, and in all matters pertaining to the adjustment of the individual to the new environment. Attendance upon these exercises is required of all Freshmen.

SPECIAL STUDENTS

Students of mature age may, upon approval by the Dean, be admitted as special students and allowed to enroll for such work as they are prepared to carry.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS

GENERAL REGULATIONS

The requirements for the degree of Bachelor of Arts are designed to give the students such training in certain fundamental subjects as is essential for intelligent, educated citizens. The requirements also provide the opportunity for as wide an election as possible from courses of study which are both interesting and practically helpful in connection with vocations the students plan later to pursue.

Credit for one hundred and twenty-two semester-hours, on which an average grade of "C" must be made, is required for the degree of Bachelor of Arts in all groups. In addition to these requirements all candidates for the Bachelor of Arts must complete, with an average grade of "C" or better, physical education to the equivalent of six semester-hours. In Trinity College the physical education requirement is completed by the end of the Sophomore year; in the Woman's College, by the end of the Junior year.

The Faculty has authorized the groups of studies below for the guidance of students in selecting the work required for graduation. A student is free to choose any group he may desire. The several groups are designed to be of special value in a chosen profession and at the same time to provide a well-balanced course of study. With the approval of the Dean a student may at any time transfer from one group to another. In such transfers, work done in one group and not prescribed in the other will count as general elective credit, but all work prescribed in the new group must be completed before the student can be graduated.

No student is permitted to take less than fourteen semester-hours of work without special permission from the Dean; to take more than the normal load of work (fourteen to seventeen semester-hours) unless his average grade in the preceding semester is higher than "C"; or, under any conditions, to take more than nineteen semester-hours of work, exclusive of required physical education.

On or before the date announced for the spring registration every student is required to designate the group in which he plans to graduate and to arrange his program of courses for the ensuing year. All students, when choosing courses, are urged to seek the advice of instructors in whose departments they expect to receive instruction. No course card is valid until it has the approval of the Dean.

SPECIAL REGULATIONS

The following special rules applying to the selection of courses are authorized by the Faculty:

The total amount of work that a student, other than an Honors student, may take in any one department toward the Bachelor of Arts degree is limited to a maximum of thirty-six semester-hours; with the exception that a student whose principal work is in the Departments of English, Economics, or Romance Languages may be permitted to take additional work in subdepartments not to exceed a total in the department and the subdepartments of fifty-four semester-hours.

Candidates for the degree of Bachelor of Arts whose courses of study permit may elect work from the following subjects: engineering, not to exceed eighteen semester-hours; forestry, not to exceed eighteen semester-hours. The courses elected in these departments must be those approved by the Council on Undergraduate Instruction as appropriate for the Bachelor of Arts degree and published in the Bulletin of Undergraduate Instruction. The classification of these courses, as they affect divisions of concentration and restricted electives, is left to the student's major adviser and to the Dean.

No Senior may take for graduation credit any course primarily open to Freshmen; and no Junior may take for graduation credit more than one course primarily open to Freshmen. A list of these courses is published in the Bulletin under "Courses of Instruction."

Not more than one course of six or eight semester-hours of credit in final fulfillment of the requirements for the degree of Bachelor of Arts in Duke University may be taken in another institution of approved standing, and this course must first be approved by the head of the department concerned and by the Dean.

MINIMUM UNIFORM REQUIREMENTS FOR ALL GROUPS

The following requirements are authorized for all groups:

	S.H.	
English Composition*	6	
Natural Science**	8	
Economics, History, or Political Science***		
Religion	6	

In addition to the above requirements, at least the third college year of a foreign language must be completed.****

^{*} This requirement is normally met by the completion of English 1 and 2. However,

^{*}This requirement is normally met by the completion of English 1 and 2. However, a Freshman who satisfies the Department of English of his superior ability in composition may substitute another English course for the normal requirement.

**A student who does not present for entrance an acceptable unit of science must take sixteen semester-hours of science for graduation.

***A student who does not present for entrance two acceptable units of history (exclusive of other social science work) must take history as his required work; otherwise he may fulfill this requirement in any one of the three subjects.

****Students who begin their language requirements in college are expected to follow the sequence of courses laid down by the department whose work they take and can omit only such course or courses as may be approved both by the department and the office of the Dean. Students who are granted the privilege of completing their language requirement by taking only six semester-hours in college must first pass, with at least a grade of "C," a special examination covering the work of the second college year. In addition, they must make at least an average of "C" on the work of the third college year. If a Freshman presents for entrance four units of Latin, he may satisfy his language requirements by taking either two years of Latin or two years of Greek.

Of these minimum requirements, at least three courses, including English and foreign language, should be taken in the Freshman year, and all of them, except foreign language and religion, by the end of the Sophomore year.

The courses primarily open to Freshmen and the courses that will satisfy the requirements in history, science, and religion are listed under "Courses of Instruction."

GROUPS OF STUDIES FOR THE DEGREE OF BACHELOR OF ARTS

GROUP I

GENERAL

This group is based on the traditional requirement for the degree of Bachelor of Arts. Students who choose it must complete the minimum uniform requirements for graduation; forty-two semester-hours in a division of concentration, exclusive of courses open primarily to Freshmen (in the Division of the Natural Sciences a maximum of eight hours of Freshman work is permitted in the forty-two hours mentioned above); twelve semester-hours of restricted electives in the other divisions; and free elective work sufficient to complete, with an average grade of "C," the one hundred and twenty-two semester-hours necessary for graduation. The departments of instruction, for purposes of concentration, are grouped in three divisions:

Humanities: English, Fine Arts, German, Greek, Latin, Music, Philosophy, Romance Languages.

Social Science and History: Economics, Political Science, Education, History, Religion, Sociology.

Mathematics, Psychology, and Natural Science: Botany, Chemistry, Geol-

ogy, Mathematics, Physics, Psychology, Zoology.

The forty-two semester-hours in the division of concentration must be distributed as follows: eighteen to twenty-four semester-hours in a major department and eighteen to twenty-four semester-hours in at least two other departments of the same division with a minimum of six semester-hours in each department. The minimum number of hours required by the department for a major shall not include any course open primarily to Freshmen. Introductory courses above the Freshman level are to be counted or not at the discretion of the department concerned.

For purposes of concentration certain courses listed in the same department are considered as being in different departments; namely, courses in French, Italian, and Spanish. Likewise, courses in economics and business administration are reckoned as being in different departments. Also a student taking his major work in English literature may count courses in English composition, dramatic technique, or public speaking as part of his related work in the same division.

The twelve semester-hours of restricted electives must be taken in one or both of the divisions not chosen for concentration, with a minimum of six semester-hours in any one department of these divisions.

Attention is called here to a special regulation governing all groups leading to the Bachelor of Arts degree which limits the amount of work a student, other than an Honors student, may take in any one department to a maximum of thirty-six semester-hours, with the proviso that a student whose principal work is in the Departments of English, Economics, or Romance Languages is permitted to take additional work in subdepartments not to exceed a total in the department and the sub-departments of fifty-four semester-hours.

The remaining hours necessary for graduation, after the minimum uniform requirements, the division of concentration, and the restricted electives are satisfied, are open as free electives.

On or before the date announced for the spring registration every Sophomore in the General Group should designate his division of concentration and his major department, and arrange under the guidance of an instructor in the major department his program of studies for the following year. He should obtain the instructor's written approval of all courses selected in the division of concentration before submitting his program to the Dean for final action. In like manner, upperclassmen will recheck their courses in their divisions of concentration each year with representatives of their major departments.

GROUP II

Business Administration

This group is designed for students who enter college with the purpose of engaging in some form of business activity after graduation. The required work consists of the minimum uniform requirements and the courses specified below.

The following arrangement of specified courses is recommended for students electing this group:

Freshman Year: Economics 11,* Mathematics 3-4, or equivalent. Sophomore Year: Economics 51-52, 57-58, Political Science 61-62. Junior Year: Economics 143, 138.**

Senior Year: Economics 153-154, 181-182.

In addition to the courses specified above, a student in this group must elect twenty-one semester-hours from other courses in the Department. Six semester-hours of this elective work shall be selected from courses in the two-hundred group offered for Seniors and Graduates. With the permission of the Chairman of the Department students planning to take the examination to qualify as a Certified Public Accountant may be released from this requirement.

All elective work in economics must be approved in writing by the Director of Undergraduate Studies.

^{*}This course is recommended but not required.

**With the permission of the Department, students specializing in accounting may substitute for this course one in that subject.

GROUP III

RELIGION

This group is designed for students who plan to enter the ministry or other religious work as a vocation after graduation. The required work consists of the minimum uniform requirements and the courses specified below.

The following arrangement of specified courses is recommended for students electing this group:

Freshman Year: Religion 1-2.
Sophomore Year: Religion (6 hours), Economics 51-52 or Political Science 61-62, English Literature (6 hours).

Junior Year: Religion (6 hours), Psychology 101.
Senior Year: Religion* (12 hours), Sociology (6 hours), Philosophy (6

hours).

GROUP IV

PRE-MEDICAL

Students qualifying for college graduation in this group must complete, in addition to the minimum uniform requirements, forty-two semester-hours in a division of concentration (subject to the regulations of the General Group), twelve semester-hours of restricted electives in one or both of the other divisions with at least six semester-hours in one department, and certain specific requirements as noted below. These specific requirements may count as part of the divisional concentration (if the division of concentration is the Natural Sciences) or they may count as restricted electives if another division of concentration is chosen. The foreign language should be German or French, preferably the former and including German 107-108.

The normal division of concentration for students electing this group is that of the Natural Sciences. However, the student may elect any one of the other two divisions for his divisional concentration. In this case, it may be necessary for him to complete more than one hundred and twenty-two semester-hours for his degree. If, however, the student chooses the Natural Sciences for his division of concentration, he is urged to take as much elective work as possible in the Divisions of the Social Studies and the Humanities.

Completion of English 1 and 2; Chemistry 1-2, 61-70, 151-152; Physics 51-52; and Zoology 1-2 will satisfy the minimum course recommendations of the Association of American Medical Colleges. Many medical schools advise the completion of additional courses in these and in other subjects. The pre-medical student should ascertain the requirements of the particular medical school that he expects to attend.

The following arrangement of the courses in science is suggested:

Freshman Year: Chemistry 1-2, Zoology 1-2, Mathematics 7-8, or equivalent. Sophomore Year: Chemistry 61-70, Physics 51-52.

Junior Year: Chemistry 151-152.

^{*} Not more than six semester-hours of electives may be taken in the Department of Religion.

GROUP V

COLLEGE TEACHING

This group is designed for students who plan to do work in a graduate school and teach in college. The required work consists of the minimum uniform requirements and the work specified below:

French and German through the second year of college work.* Since one of these languages may be taken through the third year of college work to satisfy the minimum uniform requirements, only the one not

taken thus must be chosen to meet the conditions of this group.

Twenty-four semester-hours of work in the major subject, exclusive of work in the subject offered primarily for Freshmen; twelve semester-hours of work in related subjects approved by the student's Departmental Adviser; twelve semester-hours in education, philosophy, and psychology, or in any one, not including any courses in secondary or elementary school methods.

Elective work, not to be taken in the major department, sufficient to complete the one hundred and twenty-two semester-hours necessary for graduation.

At least twelve semester-hours of the work taken in the Senior year must be in courses open only to Seniors and Graduates.

GROUP VI

Public School Teaching

This group is designed for two classes of students: (a) those who plan to teach in secondary schools; (b) those who plan to teach in elementary schools.

The required work consists of the minimum uniform requirements and the requirements listed under one of the classes below, according as the student expects to teach in a secondary school or in an elementary school.

CLASS A: SECONDARY SCHOOL TEACHING

Students in this class are required to take:

Eighteen semester-hours in education, of which three semester-hours may be in general psychology. The work in education must include three semester-hours in directed observation and practice teaching, three semester-hours in educational psychology, and three semester-hours in secondary education.

Six semester-hours, three each, in materials and methods, in two fields of high-school teaching.

Work in the subject matter of the two subjects the student intends to teach, sufficient to satisfy the minimum requirements as listed in the table below:

English, twenty-four semester-hours, to include the six of required work in composition, six in English literature, and six in American literature. French, eighteen semester-hours, based on the usual two units for admission. German, Spanish, and Greek, the same requirements as for French.

^{*} Greek or Latin may be substituted for either French or German.

History, eighteen semester-hours, including six each in American, ancient and medieval, and modern European history, and six semester-hours of economics or political science. It is recommended to prospective teachers of history and related subjects that they take elective work in sociology, geography, and at least a semester each in economics and political science. Latin, eighteen semester-hours based on the traditional four units for admis-

Mathematics, fifteen semester-hours. Music, thirty semester-hours.

Physical Education, twelve semester-hours.

Science, thirty semester-hours, including elementary courses in biology, chemistry, physics and geography or geology.

A student may prepare to teach only one high-school subject by taking a major of twenty-four semester-hours in that subject (physical education excepted) in addition to the general required work in Class A, the required work in education and psychology, and the specifically required work in directed observation and materials and methods in the subject chosen.

Elective work sufficient to complete the one hundred and twenty-two semester-hours for graduation. It is recommended that the elective work be chosen in the two subjects the student is preparing to teach and in the Division of Social Science, provided the total amount of work taken in any department may not exceed the total allowed in Group I.

Students who are preparing to teach are warned to read carefully the certification rules of the state in which they are going to teach and to advise fully with the Dean before electing courses in subjects they are preparing to teach. They are further warned to take their professional courses in the order outlined by the Department of Education, reserving for their Senior year courses in materials and methods and in directed observation and practice teaching.

At least twelve semester-hours of the work in the Senior year must be in courses open only to Seniors or to Seniors and Graduates.

CLASS B: ELEMENTARY SCHOOL TEACHING

Students in this class conform to the general requirements of Group I. Education is treated as a major department, and the Social Science Division as the division of concentration. In addition to the general requirements of Group I, the following specific requirements must be met:

	S.H.
English	
American History and Government	
Geography	6
Physical Education and Hygiene	6

These special requirements are reckoned in each case as a part of the appropriate division of concentration. The student in Class B should take Education 8 in the first semester of his Freshman year and advise with the Department as to an appropriate course for the spring semester. In all other particulars his course follows the General Group for the first vear.

The following arrangement of courses is recommended for Freshmen entering the Teaching Group. The work for the following years will be arranged by the Department of Education.

FRESHMAN YEAR

S	.н.
English	. 6
Foreign Language	. 6
Science	. 8
History or elective*	. 6
Education or elective**	. 6
	32

GROUP VII

PRE-LEGAL

This group is designed for students who expect to study law after graduation. The required work consists of the minimum uniform requirements*** and the courses specified below.

The following arrangement of specified courses is recommended:

Freshman Year: Introductory Course in History (1-2 if taken in the Fresh-

man year or 51-52 if taken thereafter). Sophomore Year: Economics 51-52, Political Science 61-62.

Economics 143, History 105-106, Psychology 101, and either Junior Year:

English 151 or 152.

Six semester-hours of Economics from courses approved Senior Year: for Seniors.

The electives should be chosen largely from the work offered by the following departments: Philosophy, Sociology, Economics, History, Psychology, and Political Science. The total work (required and elective) in any one department may not exceed thirty semester-hours.

At least twelve semester-hours of the electives in the Senior year must be Senior-Graduate courses.

GROUP VIII

SOCIAL SERVICE

This group is designed for students who purpose after graduation to pursue professional studies in order to engage in practical social welfare work, such as family welfare, child welfare, public welfare, probation and parole, and similar forms of neighborhood and community work. The required work consists of the minimum uniform requirements and the courses specified below. Zoology is recommended for the required course in science.

Group.

*** When there is overlapping, the minimum uniform requirements are accepted as a part of the special requirements in this group.

^{*}History is an alternate with economics or political science in the minimum requirements when the student presents two units of history for admission.

**Students in Class B should take Education 8 the first semester and follow it with the course approved by the Department of Education the second semester; students in Class A follow the same plan or take any of the electives authorized for the General

The following arrangement of specified courses is recommended for students electing this group:

Freshman Year: History 1-2.
Sophomore Year: Economics 51-52, Sociology 91-92 or Sociology 101.
Junior Year: Philosophy (6 hours), Political Science (6 hours), Psychology 101, Sociology (6 hours).
Senior Year: Economics (6 hours), Psychology (6 hours), Sociology (6

The electives should be chosen mainly from history, economics, political science, education, sociology, philosophy, psychology, and religion.

The subjects required for the Junior and Senior years may be transposed according to the courses available in any particular year.

GROUP IX

ACADEMIC-LAW COMBINATION

Students in either of the Liberal Arts Colleges of Duke University may complete in six years a combined course whereby they will receive their academic degree and also the degree of Bachelor of Laws. This arrangement is made possible under the following recommendations of the Faculty of the Arts Colleges:

Students who have completed with not less than a "C" average at least ninety-six semester-hours of undergraduate work, including both the minimum uniform and the specific requirements, in the Pre-Legal Group of studies in Duke University may on the approval of the Dean of the undergraduate college transfer to the Law School of Duke University and become eligible for the Bachelor's degree on the satisfactory completion of the full twenty-six semester-hours of work of the firstyear class in this school.

It is understood that this provision shall apply solely to eligible Duke University undergraduates, and that not less than the full first-year's work of the Law School will be acceptable for credit towards the Bachelor's degree.

GROUP X

Honors

Purpose: Students who have revealed their desire and demonstrated their ability to do a type of intellectual work higher than that normally required for the liberal arts degree may apply to read for Honors during their last two college years. The aim of the Honors studies is to permit qualified undergraduates to attain a knowledge, both comprehensive and intensive, of a particular field, or fields, under conditions most stimulating to individual initiative and independence.

General Rules:

I. A student who has sixty-two semester-hours of work to his credit and who has completed the minimum requirements for graduation may apply to read for Honors, A departmental committee may, however, permit students to take as much as twelve hours of the minimum uniform requirements in the Junior and Senior years provided that these are offset by the same number of hours in related subjects taken previously in courses not open primarily to Freshmen.

- II. The Departmental Honors Program constitutes the work of the Honors student during the Junior and Senior years. This program shall be the equivalent of sixty semester-hours of work.
- III. The minimum amount of work that may be taken in the major department shall be the equivalent of twenty-four semester-hours, and the maximum shall be the equivalent of thirty-six semester-hours.
- IV. The related work, which constitutes at least two fifths of the Honors program, that is, the equivalent of twenty-four semester-hours, must be distributed among not less than two departments, unless the departmental committee gives special permission for the student to take his related work in one department.

Departmental Honors: Honors courses are available to qualified students in the following departments: Botany, Chemistry, Economics, Education, English, French, German, Greek, History, Mathematics, Physics, Psychology, Religion, and Zoology.

An undergraduate wishing to qualify for Departmental Honors usually enters the General Group during the Freshman year. At the close of the Sophomore year he may apply to read for Honors in a particular department. The requirements for admission to candidacy for Honors vary in the different departments. The student should consult the special requirements set forth in the "Departmental Honors Program." The Departmental Committee determines the eligibility of the various applicants for Honors reading within the department.

Students transferring from other institutions of approved standing at the close of the Sophomore year may be admitted to candidacy for Honors. Those wishing to read for Honors who expect to transfer at the close of the Sophomore year should communicate with Dean W. K. Greene, Chairman of the College Council on Honors, not later than April 15.

The work required of students in the Departmental Honors Group consists of (1) the minimum uniform requirements; (2) the program of Honors for the Junior and Senior years; and (3) elective work sufficient to complete the semester-hours necessary for graduation.

Study in a Department Honors course always includes work in regular open courses. In both Junior and Senior years it may, and usually does, also include work under special instruction (seminarial or tutorial) and assignments of independent reading.

All candidates who complete satisfactorily the minimum uniform requirements, a Departmental Honors course, and elective work sufficient to earn the necessary hours for graduation will be recommended by the Departmental Committee to the Dean of the College for graduation with Honors.

For brief outlines of the various plans for Departmental Honors the student should see the section, "Departmental Honors Program," among the offerings of each department listed above. Students are also urged to consult the Honors Adviser of the department in which they are primarily interested. A list of these Advisers follows:

Botany: Miss Addoms Chemistry: Mr. Vosburgh Economics: Mr. de Vyver Education: Mr. Holton English: Mr. Irving French: Mr. Webb German: Mr. Vollmer Greek: Mr. Peppler History: Mr. Laprade Mathematics: Mr. Elliott Physics: Mr. Hatley Psychology: Mr. Zener Religion: Mr. Myers Zoology: Mr. Gray

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE

GENERAL REGULATIONS

The general regulations governing the requirements for the degree of Bachelor of Science are the same as those for the degree of Bachelor of Arts.

SPECIAL REGULATIONS

The following special rules applying to the selection of courses are authorized by the Faculty:

The total amount of work that a student, other than an Honors student, may take in any one department toward the Bachelor of Science degree is limited to a maximum of thirty-six semester-hours; provided that a student whose principal work is in a department containing several subdepartments is permitted to take additional work in subdepartments not to exceed a total in the department and the subdepartments of fiftyfour semester-hours.

No Senior may take for graduation credit any course primarily open to Freshmen; and no Junior may take for graduation credit more than one course primarily open to Freshman. A list of these courses is published in the Bulletin under "Courses of Instruction."

Not more than one course of six or eight semester-hours of credit in final fulfillment of the requirements for the degree of Bachelor of Science in Duke University may be taken in another institution of approved standing, and this course must first be approved by the head of the department concerned and by the Dean.

MINIMUM UNIFORM REQUIREMENTS FOR ALL GROUPS

The following requirements are authorized for all groups:

	S.H.
Economics, History, or Political Science*	6
English Composition**	6
French*** (second college year)	6-12
German*** (second college year)	6-12
Mathematics****	6
Natural Science****	16
Religion	6

*A student who does not present for entrance two acceptable units of history (exclusive of other social science work) must take history as his required work; otherwise, he may fulfill this requirement in any one of the three subjects.

This requirement is normally met by the completion of English 1 and 2 or 4. However, a Freshman who satisfies the Department of English of his superior ability in composition may substitute another English course for the normal requirement. If a student fails to pass English 1-2 with a grade of "C" or better, he must complete three additional semester-hours of composition. * All candidates for the degree of Bachelor of Science must complete at least the second year of both college French and college German or their equivalent as determined

by examination.

**** This requirement must be satisfied by the completion of Mathematics 7-8, or

equivalent.

***** All candidates for the degree of Bachelor of Science must complete eight semester-hours in each of two elementary sciences.

Of these minimum requirements, at least three courses, including English and foreign language, should be taken in the Freshman year, and all of them, except foreign language and religion, by the end of the Sophomore year.

The courses primarily open to Freshmen and the courses that will satisfy the requirements in history, science, and religion are listed under "Courses of Instruction."

GROUPS OF STUDIES FOR THE DEGREE OF BACHELOR OF SCIENCE

GROUP I

GENERAL

Students who choose this group are required to complete the minimum uniform requirements for graduation; forty-eight semester-hours in the Division of Mathematics, Pyschology, and Natural Science, of which not less than twenty-four nor more than thirty-two semester-hours may be taken in a major department (the hours prescribed in the major department may not include a course primarily open to Freshmen); and free elective work sufficient to complete, with an average grade of "C," the one hundred and twenty-two semester-hours necessary for graduation.

The student's major work must be in botany, chemistry, forestry, geology, mathematics, physics, psychology, or zoology.

Attention is called here to a special regulation governing all groups leading to the Bachelor of Science degree which limits the amount of work a student, other than an Honors student, may take in any one department to a maximum of thirty-six semester-hours, with the proviso that a student whose principal work is in a department containing any approved sub-departments is permitted to take additional work in sub-departments not to exceed a total in the department and the sub-departments of fifty-four semester-hours.

On or before the date announced for the spring registration every Sophomore in the General Group should designate his major department in the division and arrange under the guidance of an instructor in the major department his program of studies for the following year. The student is at liberty to choose for his counsellor any instructor in his major department who gives advanced courses. He should obtain the instructor's written approval of all courses selected in the division before submitting his program to the Dean for final action. In like manner, upperclassmen will check their courses in the division each year with representatives of their major department.

GROUP II

PRE-FORESTRY

This group of studies is designed for students who intend to pursue the study of forestry, particularly as a profession. The first three years are given largely to fundamental and auxiliary subjects basic to a proper understanding of the more specialized work in technical forestry, which ordinarily requires two additional years to complete. The fourth year of this curriculum is devoted entirely to the first year of technical forestry. Upon the satisfactory completion of this four-year pre-forestry curriculum a student is eligible for a Bachelor of Science degree from Duke University. With this basic preparation it is possible to obtain the professional degree of Master of Forestry in one additional year of work taken in the School of Forestry (see *Bulletin of the School of Forestry*).

In addition to the one hundred and twenty semester-hours required during the eight regular semesters, students in this group must, at the end of their Junior year, take twelve weeks of summer field work as outlined below. They must also present at least two units in either French or German before being admitted to candidacy within the Group and are advised, if possible, to present two units each in French and German. They must also take elementary economics as their required work in the social studies, and are therefore advised to present two high-school units in history.

The following arrangement of courses is recommended for students electing this group:

Freshman Year				
FIRST SEMESTER	SECOND SEMESTER			
S.H. Botany 1	Botany 2 4 Physics 2 4 English 2 3 Foreign Language 3			
14	14			
Sophomore Year				
Chemistry 1 4 Mathematics 7 3 Religion 3 Engineering Drawing 1 2 Foreign Language 3 — 15	Chemistry 2 4 Mathematics 8 3 Botany 52 4 Engineering Drawing 2 2 Foreign Language 3 — 16			
Junior	Year			
Botany 151 4 Geology 51 4 Economics 51 3 Foreign Language 3	Botany 156 4 Forestry (elective) 2 Economics 52 3 Foreign Language 3 Religion 3			
- 14	15			

Summer Field Work: 12 weeks to include Civil Engineering S110 (Plane Surveying), 2 s.h.; Forestry S150 (Forest Surveying), 5 s.h.; Forestry S151 (Forest Mensuration), 4 s.h., which are required for further work in forestry.

Senior Year

Forestry 231 Forestry 251 Forestry 253 Forestry 259	3 3 2 2 3	Forestry 224 Forestry 254 Forestry 264	
			_
	16		16

All elective courses must be selected in consultation with the Forestry Staff.

COURSES OF INSTRUCTION, TRINITY COLLEGE AND THE WOMAN'S COLLEGE

Note: Courses primarily for Freshmen are numbered from 1 to 49; those primarily for Sophomores are numbered from 50 to 99; those primarily for Juniors and Seniors from 100 to 199; those primarily for Seniors and Graduates from 200 to 299. The amount of credit for each course is given in semester-hours following the description of the course.

The designation (w) or (E) indicates that the course is to be given on the West Campus or on the East Campus. The designation E means Engineering; L, Law; SR, School of Religion. When this designation precedes a course num-

ber, the course is not approved for graduate credit.

Odd-numbered courses are offered in the fall semester, and even-numbered courses are offered in the spring semester. Double numbers indicate that the course is a year course and must normally be continued throughout the year if credit is received. A student must secure written permission from the instructor in order to receive credit for either semester of a year course.

COURSES OPEN PRIMARILY TO FRESHMEN

Botany 1-2 Chemistry 1-2 Economics 11 Education 4, 8 English 1-2 Fine Arts 1-2 French 1-2, 3-4 German 1-2, 3-4 Greek 15 History 1-2 Latin 1-2-3, 4, 15, 16, 41, 42 Mathematics 1, 2, 3-4, 7, 8, 9-10 Music 11-12 Philosophy 48 Physics 1-2 Political Science 21-22 Religion 1-2 Spanish 1-2, 3-4 Zoology 1-2

BOTANY

PROFESSOR BLOMQUIST, CHAIRMAN; ASSOCIATE PROFESSOR KRAMER, DIRECTOR OF UNDERGRADUATE STUDIES; DR. ANDERSON, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSOR WOLF; ASSOCIATE PROFESSOR HARRAR; ASSOCIATE PROFESSOR ADDMS, SUPERVISOR OF FRESHMAN INSTRUCTION (WOMAN'S COLLEGE); ASSISTANT PROFESSORS OOSTING AND PERRY; DR. PAGÁN

AND ASSISTANTS

- 1. General Botany.—An introduction to the structure and life-processes of seed plants and the environmental factors influencing their distribution. Laboratory, discussions, and field trips. Three two-hour periods. 4 s.h. (w & E)
- 2. General Botany.—A survey of the plant kingdom with emphasis on reproduction and an introduction to identification. Three two-hour periods, Prerequisite: Botany 1. 4 s.h. (w & E)
- 51. Growth.—Experimental studies of the processes involved in growth, and the application of this knowledge to the growth and propagation of plants. Prerequisite: one year of botany. 4 s.h. (E)

 ASSOCIATE PROFESSOR ADDOMS
- 52. Plant Identification.—Practice in the identification of local plants, especially flowering plants, and a study of the principles and rules underlying plant classification. Laboratory, lectures, and field trips. Prerequisite: one year of botany. 4 s.h. (w)

 Assistant Professor Oosting

Botany 63

55. Morphology and Anatomy of Vascular Plants.—A comparative study of representative ferns and seed plants, including vegetative and reproductive structures. Prerequisite: one year of botany. 4 s.h. (w)

Assistant Professor Oosting

- 101. Principles of Heredity.—The basic principles of heredity and their significance. Lectures, three hours; laboratory, two hours; conference (attendance optional), one hour. Laboratory work includes experimental breeding of the fruit fly. May be taken as a lecture course without laboratory. Prerequisite: one course in biology, botany, or zoology. High-school or college algebra recommended. 3 or 4 s.h. (w)

 Assistant Professor Perry
- 103. General Bacteriology.—Prerequisite: one year of botany or zoology, or equivalent. 4 s.h. (w) first semester and (E) second semester.

 Professor Wolf
- 104. The Structure and Identification of Lower Plants.—A study of representative examples of the more important groups of algae, fungi, mosses and liverworts, including collection, identification and classification of common forms. Prerequisite: one year of botany. 4 s.h. (w)

 DR. Anderson
- 151. Introductory Plant Physiology.—The principal physiological processes of plants, including water relations, synthesis, and use of foods, and growth phenomena. Prerequisite: Botany 1, 2, or equivalent; one year of chemistry recommended. 4 s.h. (w)

 ASSOCIATE PROFESSOR KRAMER
- 156. Plant Ecology.—The principal factors affecting plants and plant communities as they exist in different environments. Laboratory, lectures, and field trips. Prerequisites: Botany 1, 2, and 52, or equivalent. 4 s.h. (w)

 Assistant Professor Oosting
- 202. Genetics.—The principles of heredity, their cytological basis, and their bearing on other fields of biology. Laboratory work involves experimental breeding of the fruit fly and interpretation of data from the breeding of plants. Offered in alternate years. Prerequisites: one year of botany or zoology, or equivalent, and college algebra. 4 s.h. (w)

[Not offered in 1941-42] Assistant Professor Perry

- 203. Plant Cytology.—A study of the structure and organization of plant cells in relation to growth, reproduction, and especially heredity. Prerequisite: one year of botany. 4 s.h. (w)

 DR. ANDERSON
- 204. Advanced Plant Anatomy.—The structure of vegetative and reproductive organs of seed plants, including a consideration of seedling anatomy. Specific reference is made to plants of economic importance. Offered in alternate years. Prerequisite: Botany 55 or equivalent. 4 s.h. (w)

Associate Professor Addoms

- 216. Botanical Microtechnique.—Studies in methods of preparing temporary and permanent microscopical slides; theory of staining; the use of the microscope, especially microscopical measurements; drawing, and photomicrography, botanical photography, and lantern slides. Prerequisite: two semesters of botany. 4 s.h. (w)

 DR. Anderson
- 221. Structure and Classification of Fungi.—Prerequisite: two semesters of botany. 4 s.h. (w) Professor Wolf

225-226. Special Problems.—Students with adequate training may do special work in the following fields:

- a. Bacteriology, Mycology, and Plant Pathology.

 Professor Wolf
- b. Cytology. Dr. Anderson
- c. Ecology. Assistant Professor Oosting

d. Genetics. Assistant Professor Perry

e. Morphology and Anatomy of Higher Groups.

Associate Professors Harrar and Addoms; Assistant Professor Oosting

f. Morphology and Taxonomy of Lower Groups.

Dr. Pagán and Dr. Anderson

- g. Physiology. Associate Professors Kramer and Addoms
- h. Plant Microchemistry.

 ASSOCIATE PROFESSOR ADDOMS
 i. Taxonomy of Higher Groups.

 ASSISTANT PROFESSOR OOSTING
- 252. Advanced Plant Physiology.—The physicochemical processes and conditions underlying the physiological processes of plants. Prerequisite: Botany 151 or equivalent; organic chemistry recommended. 4 s.h. (w)

[Not offered in 1941-42] Associate Professor Kramer

255. Advanced Taxonomy.—A study of the historical background of plant taxonomy, modern concepts and systems of classification, nomenclatorial problems and the taxonomy of specialized groups. Prerequisite: two years of botany, including Botany 52, or equivalent. 4 s.h. (w)

[Not offered in 1941-42] Professor Blomquist

256. Field Ecology.—An ecological survey of local vegetation, including theory and practice in the use of instruments for precise habitat studies, and analysis of community and successional relationships. Offered in alternate years. Prerequisites: Botany 1, 2, and 52, or equivalent. 4 s.h. (w)

Assistant Professor Oosting

FOREST BOTANY

224. Forest Pathology.—Special reference to diseases of forest trees. Prerequisites: Botany 1, 2, 3 or 4 s.h. (w)

Professor Wolf

253-254. Dendrology.—Nomenclature, classification, and identification of woody plants with special reference to species indigenous to southeastern United States and other important forest regions of temperate North America. Laboratory and field work. Prerequisite: one year of botany. 4 s.h. (w)

ASSOCIATE PROFESSOR HARRAR

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Related courses which may be counted toward a major in Botany.

Zoology 110. Introduction to Genetics. 2 s.h. (w)

Dr. Johnson

DEPARTMENTAL MAJOR

Prerequisites: Botany 1 and 2.

Major Requirements: A minimum of twenty-one hours of work including courses 52, 55, and 104. The remaining hours may be selected from any other courses in the Department for which the student is eligible, subject to the approval of the Departmental Adviser.

DEPARTMENTAL HONORS PROGRAM

I. Prerequisites: Botany 1-2. A year course in each of three other sciences acceptable to the Departmental Committee. Some of these may be taken concurrently with the Honors work.

II. Honors Work:

a. Botany.

1. Scheduled courses. At least 5 courses (18-20 semester hours)

beyond Botany 1-2.

2. Reading Courses and Problems, chiefly in the Senior year. Nine semester-hours. In addition to scheduled courses, each Honors student will take reading courses in such fields as History of

Botany and Theories of Biology; or he may take reading courses in special fields; or he may undertake a special problem; or he may carry on both reading and a problem. This work will count as nine semester-hours and will extend through a year at least. The student will report to his Adviser regularly for conference on this work. He may be asked to prepare written reports on the reading courses, and he must make a report on his problem.

b. Philosophy—6 semester-hours.

c. Electives in Botany or in other departments, subject to the approval of the Departmental Committee.

III. General Honors Examination: In the spring semester of the Senior year, each student must pass a general examination on the entire field of his Honors work. The Examining Committee consists of the Departmental Committee and such Advisers as have been concerned with his Honors work. The student must present a written report upon his problem and such written reports upon his reading as may be required, before he is permitted to take the general examination.

CHEMISTRY

PROFESSOR GROSS, CHAIRMAN; PROFESSOR VOSBURGH, DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANT PROFESSOR HILL, SUPERVISOR OF FRESHMAN INSTRUC-

TION; PROFESSORS LONDON AND WILSON; ASSOCIATE PROFESSOR BIGELOW; ASSISTANT PROFESSORS BROWN, HAUSER AND SAYLOR; DRS. BRADSHER AND HOBBS; AND ASSISTANTS

- 1-2. General Inorganic Chemistry.—Lectures, recitations, and laboratory artion, properties, and uses of the elements and their compounds. It is desirable, though not required, that students taking this course shall have taken elementary physics either in high school or in college. One lecture, two recitations, and three laboratory hours, throughout the year. 8 s.h. (w & E)

 Assistant Professor Hill with Professor Wilson; Assistant Professor Hill with Professor Wilson; Assistant Professor Hill with Professor Wilson; Assistant Professor Wilson; A PROFESSORS BROWN AND SAYLOR; DRS. BRADSHER AND HOBBS; AND ASSISTANTS
- 61. Qualitative Analysis.—A study of the reactions of electrolytes in solution as applied to the qualitative analysis of mixtures of inorganic compounds. One lecture, one recitation, and six laboratory hours. Prerequisites: Chemistry 1-2 and algebra. 4 s.h. (w)

PROFESSOR VOSBURGH; ASSISTANT PROFESSOR SAYLOR; Dr. Hobbs; and Assistants

70. Quantitative Analysis.—A study of the theory and technique of inorganic gravimetric and volumetric analysis. One lecture, one recitation, and six laboratory hours. Prerequisite: Chemistry 61. Analytic geometry and college physics are desirable but not required. 4 s.h. (w)

Professor Vosburgh; Assistant Professor Saylor;

DR. HOBBS; AND ASSISTANTS

131-132. Advanced Quantitative Analysis.—Laboratory exercises in the quantitative analysis of complex materials and in physicochemical measurements such as potentiometric titration, pH measurements, photometric methods of analysis, and other instrumental methods. Six laboratory hours. Prerequisites: Chemistry 70 and Physics 51-52 or equivalent. 4 s.h. (w)

PROFESSOR VOSBURGH AND ASSISTANT PROFESSOR SAYLOR

151-152. Organic Chemistry.—An introduction to the study of the compounds of carbon. Both the aliphatic and the aromatic series are dealt with, and the lectures are illustrated by selected laboratory experiments. Two lectures, one recitation and three laboratory hours. Prerequisites: Chemistry 61 and 70. Course 151 is prerequisite for 152. 8 s.h. (w)_

Associate Professor Bigelow; Assistant Professors Brown and Hauser; Dr. Bradsher; and Assistants

153-154. Intermediate Chemistry Laboratory.—Special laboratory exercises of a more advanced nature than given in courses 70 and 151-152. Required of candidates for Honors in chemistry and open to others with special permission of the Department. 2 or 4 s.h. (w)

Associate Professor Bigelow and Other Members of the Staff

- 173-174. Honors Seminar.—One hour a week discussion based on assigned reading. Required of all candidates for Honors in chemistry in both Junior and Senior years. 2 s.h. (w)

 PROFESSOR VOSBURGH
- 215-216. Advanced Inorganic Chemistry.—A study of modern theories of valence and molecular structure; also of inorganic compounds, particularly the less common types, the colloidal state of matter and the phase rule, illustrated by suitable laboratory preparations. Prerequisites: Chemistry 70 and 151-152. Chemistry 261-262, Physics 59-60 or 213-214 and ability to read German are desirable. 6 s.h. (w)

PROFESSOR VOSBURGH AND ASSISTANT PROFESSOR HILL

- 241. Physiological Chemistry.—A study of the chemistry of human physiology. Clinical aspects of the subject are treated with reference to the need of prospective medical students. Two recitations and six laboratory hours. Prerequisites: Chemistry 70 and 151-152. Course 261-262 is desirable though not required. 4 s.h. (w)

 PROFESSOR WILSON AND ASSISTANT
- 242. Metabolism.—Open to students who have completed course 241 or its equivalent, and who have a reading knowledge of German. Lectures and collateral reading deal with the probable fate of foodstuffs in the body, the nitrogen balance, energy requirement, nutritive ratios, vital factors, and ductless glands. The laboratory work consists mainly of blood analysis under both normal and pathological conditions. The laboratory or lectures may be taken separately. Two lectures, credit 2 s.h., and 6 laboratory hours, credit 2 s.h. 4 s.h. (w)

 PROFESSOR WILSON AND ASSISTANT
- 253-254. Advanced Organic Chemistry.—A continuation of Chemistry 151-152, including discussion of the theories of organic chemistry. The laboratory work will include qualitative organic analysis, together with preparations of the more difficult type, requiring reference to the original literature. Two lectures and 6 laboratory hours. Prerequisites: Chemistry 151-152 or equivalent and a reading knowledge of German. 8 s.h. (w)

Associate Professor Bigelow; Assistant Professors
Brown and Hauser

261-262. Physical Chemistry.—Fundamentals of general theoretical chemistry illustrated by selected laboratory experiments. Two recitations and three laboratory hours. Prerequisites: Chemistry 70, 151-152, Physics 1-2 or equivalent and Mathematics 7-8 or equivalent. Calculus is desirable but is not required. In exceptional cases, and with the permission of the Department, graduate students may offer other advanced science courses in place of some of these prerequisites. Undergraduates are admitted to this course only by permission of the Director of Undergraduate Studies. 6 s.h. (w)

Professor Gross, Assistant Professor Saylor and Dr. Hobbs

271. Introduction to Research.—Lectures on the use of chemical literature, research methods, recording and publication of results, preparation of theses and other topics. One lecture. 1 s.h. (w)

Professors Gross and Vosburgh, and Associate Professor Bigelow

[Offered in the second semester in 1941-42]

273-274. Seminar.—Required of all graduate students in chemistry. One hour a week discussion. 2 s.h. (w)

PROFESSORS GROSS, VOSBURGH; ASSOCIATE PROFESSOR BIGELOW; Assistant Professors Brown, Hauser, Hill and Saylor: Drs. Bradsher and Hobbs

275-276. Research.—The aim of this course is to give instruction in methods used in the investigation of original problems. It is open to Seniors who have had courses 70, 151-152, and who are taking 261-262. Nine hours a week and conferences. 3 or 6 s.h. (w)

Professors Gross, London, Vosburgh, and Wilson; Associate Professor BIGELOW; ASSISTANT PROFESSORS BROWN, HAUSER, HILL AND

SAYLOR; DRS. BRADSHER AND HOBBS

DEPARTMENTAL MAJOR

A. For the degree of A.B.

Prerequisites: Chemistry 1-2, Mathematics 7-8 (or equivalent).

Major Requirements: Chemistry 61-70, 151-152 and 261-262. With the permission of the Department other chemistry courses giving a total of not less

than 6 s.h. credit may be substituted for Chemistry 261-262.

B. For the degree of B.S.

Prerequisites: Chemistry 1-2, Mathematics 7-50 (or equivalent).

Major Requirements: Chemistry 61-70, 131-132, 151-152, 153-154, 261-262.

The required work in the Science Division must include Mathematics 51-52 and Physics 51-52 (or equivalent).

DEPARTMENTAL HONORS PROGRAM

Prerequisites: Chemistry 61-70; Mathematics, 6 s.h., and Physics 51-52 or

equivalent.

Honors Program: Chemistry 131-132, 151-152, 153-154, 173-174, 261-262, and 275-276; Mathematics through integral calculus; Physics, Botany, Geology, or Zoology, 6 s.h.; electives, subject to the approval of the Departmental Honors Committee, 20 s.h. (or enough to satisfy the requirements for graduation).

Chemistry 153-154 is a special laboratory course in which there is individual

attention to and supervision of the work of each student.

Chemistry 173-174 is a seminar primarily for Honors students of both Junior and Senior years. The purpose is to give practice in the use of chem-

ical literature and the oral presentation of assigned topics.

In Chemistry 275-276 an experimental research project is carried out under the direction of a member of the Staff, the object being to gain acquaintance with the aims and methods of research. A written report on the research is required.

A general examination in chemistry is given at the end of both Junior and

Senior years.

ECONOMICS AND BUSINESS ADMINISTRATION

PROFESSOR HOOVER, CHAIRMAN; ASSOCIATE PROFESSOR DE VYVER, DIRECTOR OF UNDERGRADUATE STUDIES; PROFESSORS HAMILTON, SPENGLER, AND VON BECKERATH; ASSOCIATE PROFESSORS BLACK AND RATCHFORD; ASSIST-ANT PROFESSORS DELAPLANE, EITEMAN, LANDON, LEMERT, LESTER, SHIELDS, SMITH, AND SPRINGER; DRS. BERRY, KEECH, AND WELFLING; MESSRS. ALLEN, MOORE, AND VAN VOORHIS

The Department offers instruction in general economics, business administration, and accounting. The general course in economics affords a survey of the whole field of economic thought and lays the foundation for specialized study in various branches of the subject. Advanced courses are offered in theoretical and applied economics.

A special group of studies is provided for candidates for the Bachelor of Arts degree who are definitely looking forward to a business career at the conclusion of their college course. While this group is mainly composed of liberal rather than technical studies, it gives opportunity in the Junior and Senior years for specialized study in such subjects as money and banking, public and corporation finance, investments, railroad and water transportation, economic geography, marketing, insurance, industrial management, accounting, and business statistics.

ECONOMICS

51-52. Principles of Economics.—6 s.h. (E & W)

PROFESSOR SPENGLER; ASSISTANT PROFESSORS DELAPLANE, EITEMAN, LANDON, LESTER, AND SMITH; DRS. BERRY AND WELFLING; MESSRS. ALLEN AND MOORE

This course must be passed by all students planning to elect further courses

in Economics and Business Administration.

One section of Economics 51 will be offered during the spring semester and one section of Economics 52 will be offered during the fall semester.

- 103. Transportation.—Essential features, problems, and competitive positions of rail, highway, air, and inland-water transportation, with most emphasis on rail transportation. Special attention is given to the economic significance of transportation, and to cost factors, rates and their economic effects and regulation. 3 s.h. (w)

 Assistant Professor Landon
- 107. Conservation.—A study of the extent and distribution of our natural resources and their service in regional and national development. Emphasis will be placed upon both the natural and human factors involved in the genesis of current problems. Term reports dealing with problems of special interest to those participating will be considered. 3 s.h. (w)

[Not offered in 1941-42]

Assistant Professor Lement

138. Business Statistics.—A course in elementary statistics designed principally for students of economics and business administration. The material is also of interest to those specializing in engineering, forestry, political science, sociology, and other subjects. The course includes a study of statistical methods and their application. Very little algebra and no higher mathematics are required. Offered both semesters. 3 s.h. (w)

Assistant Professors Springer and Smith

Open to Juniors, and to Sophomores in the second semester. Not open to Seniors except with the permission of the Director of Undergraduate Studies. No credit is given for this course to a student who takes Mathematics 74. [Note: The attention of students who are taking, or who propose to take, courses 143, 144, or 158 is called to Mathematics 71, "Mathematics of Invest-

This course is recommended as an elective for Sophomores or Juniors.]

143. Corporation Finance.—Principles and problems in the financial organization of corporations; the study of corporate securities, the management of capital, the distribution of earnings; industrial combinations; insolvency and reorganization. Offered both semesters. 3 s.h. (w)

Assistant Professors Delaplane, Eiteman, and Smith

Though not a prerequisite, Economics 57-58, Principles of Accounting, is recommended to students electing this course.

Special sections of Corporation Finance will be offered for students who have had Economics 57-58.

144. Investments.—A study of the role which the security markets play in American economic life. Attention is devoted to the various types of securities, to the mechanics of their purchase and sale, to the factors which affect and determine their market prices, and to the relationship of stock

speculation to the banking system and to general prosperity. Prerequisite: Economics 57-58 and 143. 3 s.h. (w)

ASSISTANT PROFESSORS EITEMAN AND DELAPLANE

153-154. Money, Banking, and Credit.—After a preliminary study of monetary history and theory, together with an account of the development of credit instruments, there follows a more extended presentation of the theory and practice of banking. 6 s.h. (w)

Associate Professor Ratchford, Assistant Professor Lester, and Dr. Welfling

- 169. Economics of Consumption.—Economic problems of the family. Factors determining choice; commercial and legal standards for consumers' goods; consumer credit and cooperation; income and standards of living. 3 s.h. (E)

 Assistant Professor Smith
- 187. Public Finance.—This course deals with public expenditures, public revenues, public debts, and financial administration. 3 s.h. (w)

 ASSOCIATE PROFESSOR RATCHFORD
- 217. Population, Resources, and Standards of Living.—A critical survey of the economic laws of returns and of pre- and post-Malthusian population theory; consideration of the relation between natural increase and the laws of economic distribution and of the effects of changes in the rate of natural increase upon various classes of industry and upon employment; examination of the factors which govern population growth and of current population trends; analysis of international economic and political problems which are founded upon population pressure; consideration of the economic and the biological aspects of differential birth-rates. Second semester. 3 s.h. (w)

PROFESSOR SPENGLER

- 218. Business Cycles.—Description and analysis of the causes and consequences of economic rhythms and movements of various lengths (e.g., seasonal, cyclical, long-period, etc.). Analysis of methods proposed as means of curtailing such movements, or of mitigating their effects. First semester. 3 s.h. (w)

 Assistant Professor Lester
- 230. Public Debts in the United States.—A study of the characteristics of public credit as shown by the experience of national, state, and local governments in the United States. Topics considered include: forms, methods, and purposes of borrowing: effects of the contraction and repayment of debts on governmental fiscal policies, the banking and credit system, and business activity: methods of controlling or limiting debts: refunding and adjustment procedures; defaults and repudiations. Prerequisite: Economics 187 or equivalent. 3 s.h. (w)

 Associate Professor Ratchford
- 231. The Economic History of Modern Europe.—A study of the economic development of Europe since the sixteenth century, treating such topics as the guilds, mercantilism, money, banking, crises, the commercial revolution, and the industrial revolution. The rise of modern capitalism and the historical backgrounds of present economic problems will be emphasized. 3 s.h. (w)

PROFESSOR HAMILTON

- 232. The Economic History of the United States.—A study of the agricultural, industrial, commercial, and financial progress of the United States from Colonial times to the present day. Special attention will be devoted to mass production, business cycles, great fortunes, and the relationships between government and business. 3 s.h. (w)

 PROFESSOR HAMILTON
- 233. State and Local Finance.—A study of expenditures, taxation, and financial administration in state and local governments with emphasis on current problems. Special attention will be given to research methods and materials and to the financial relations between state and local governments. Prerequisite: Economics 187 or equivalent, 3 s.h. (w)

Associate Professor Ratchford

- 234. Federal Finance.—A study of the expenditures, revenues, and financial administration of the government of the United States, with emphasis on current problems. Special attention given to budgetary procedure, corporate and individual income taxes, and the financial relations between federal and state governments. Prerequisite: Economics 187 or equivalent. 3 s.h. (w)

 ASSOCIATE PROFESSOR RATCHFORD
- 237-238. Statistical Methods.—A study of statistical methods appropriate for dealing with problems in business and the social sciences. In addition to developing more thoroughly the subjects considered in *Business Statistics*, the following methods will be considered: simple, multiple, partial, and curvilinear correlation; curve fitting; probability; frequency distributions; and reliability of estimates. Prerequisite: Economics 138 or consent of the instructor. 6 s.h. (w)

 Assistant Professor Springer
- 239. Prices.—A theoretical study of the forces governing the commodity price level and an historical examination of the fluctuations, disparities, and trends of European and American prices, particularly in periods marked by acute monetary disorder or by rapid change in the stock of the precious metals. Special attention will be devoted to post-war inflation in France and Germany, the world-wide collapse of prices after 1929, and the behavior of prices in recession and recovery. 3 s.h. (w)

 PROFESSOR HAMILTON
- 241-242. Value and Distribution.—This course is a critical survey of the leading contemporary explanations of price formation and of the determination of interest, rent, wages, and profits. 6 s.h. (w)

 [Not offered first semester 1941-42]
- 245. Problems of Modern Industrialism.—This course first surveys technological efficiency and market organization as limiting factors in the determination by industrial management of the rational requirements of plant organization. External political and social forces are then introduced into the complex to show modern industrialism as a phase of mature capitalism. Against the background of modern capitalism, the issue and trends of public policy with respect to economic organization in America and Europe are compared and appraised. 3 s.h. (w)

 Professor von Beckerath
- 253. Labor Problems.—An examination of present-day labor problems followed by an intensive study of methods used by employers and workers in meeting those problems. 3 s.h. (w)

 Associate Professor de Vyver
- 256. Labor Legislation.—A study of the relations of the state to labor problems with special reference to remedial legislation, and to interference in labor disputes. Prerequisite: Economics 253, or with the consent of the instructor. 3 s.h. (w)

 Associate Professor de Vyver
- 260. Social Insurance.—A consideration of the economic and social problems involved in workmen's compensation laws, unemployment insurance, oldage pensions, and health insurance for workers. Particular attention will be given to the present federal and state social security legislation. 3 s.h. (w)
 [Not offered in 1941-42] Associate Professor DE Vyver
- 265. International Trade and Tariff Policies.—An analysis of the theoretical principles underlying international trade with an historical study of the foreign trade and tariff policies of the United States, France, Germany, and England from the eighteenth century to the present. 3 s.h. (w)

 Professor von Beckerath
- 266. International Finance.—A study of the mechanism of international payment with attention to international movements of capital, the peculiarities of an inconvertible paper money regime, maldistribution of gold, exchange control, and related problems. 3 s.h. (w)

 PROFESSOR HAMILTON
 [Not offered in 1941-42]

- 268. Competitive versus Monopolistic Enterprise.—(1) Competition as an economic order; (2) competition as a political order; (3) monopoly as a disturbance of (1) and of (2). (4) What can government do for the maintenance of the competitive order? (5) What can the judiciary do for the maintenance of the competitive order? (6) What can business do for the maintenance of the competitive order? (7) Limits and difficulties of a liberal solution; (8) short discussion of different types of compromise solutions both in the governmental and the economic field. 3 s.h. (w)

 PROFESSOR VON BECKERATH
- 270. Economics of War.—A study of the economic causes of war; the economic problems of neutrals; transition from a peace to a war economy; the cost of war and national defense; war finance through taxes, loans, and inflation; price and wage controls; rationing and priorities; the allocation of labor and resources; restrictions on shipping and exchange; the technique and results of economic warfare; war and technology; demobilization and unemployment; the return to a peace economy; debts, reparations, and indemnities; and post-war depressions. 3 s.h. (w)

 PROFESSOR HAMILTON
- 280. Advanced Economic Problems.—This course is designed to afford students an opportunity to integrate the economic principles which they have acquired in specialized courses, through the application of these principles to current economic problems. 3 s.h. (w)

 DR. Welfling

Required of all Seniors majoring in Economics and open with permission to Seniors in the Business Administration Group.

BUSINESS ADMINISTRATION

A. ACCOUNTANCY

57-58. Principles of Accounting.—Elementary principles of single proprietorship, partnership, and corporation accounting. Supervised laboratory periods will be assigned. 6 s.h. (w)

ASSOCIATE PROFESSOR DE VYVER; DR. KEECH; MR. VAN VOORHIS

- 171-172. Advanced Accounting.—Advanced accounting theory and practice applied to the managerial problems of valuation and operation in corporations, consolidations, mergers, and liquidations. Open to students who have completed Accounting 57-58. 6 s.h. (w)

 Assistant Professor Shields
- 173-174. Auditing, Theory and Practice.—This course prepares the manager to investigate the operation of his own business, the prospective investor to determine the value of the proposition, the student to practice the public accounting profession. The first semester deals with detail and balance sheet audits and the second semester with special investigations. Problems, working papers and reports. Prerequisite: Economics 171-172, and permission of the instructor. 6 s.h. (w)

 Assistant Professor Shields
- 175-176. C. P. A. Review.—Thorough practice in classroom to prepare candidates for the Certified Public Accountant examination. The object is to train students to apply accounting principles and to work in classroom under substantially the same conditions as in the examination room. Practical accounting problems, auditing analysis, and theory of accounts. Prerequisite: Economics 171-172, and permission of the instructor. 6 s.h. (W)

 Associate Professor Black
- 177. Income Tax Accounting.—A study of the accounting principles involved in the management of business enterprise under the requirements of federal income tax laws. Practice is given in the preparation of tax returns. Prerequisite: Economics 171-172, or permission of the instructor. 3 s.h. (w)

 Assistant Professor Shields

178. Accounting Systems.—The design and installation of accounting systems and the presentation of accounting reports to management in basic manufacturing industries, mercantile establishments, financial institutions and municipalities. Prerequisite: Economics 171-172, or permission of the instructor. 3 s.h. (w)

Assistant Professor Shields

[Not offered in 1941-1942]

- 180. Governmental Accounting.—Accounting principles and methods used in the control and administration of governmental units. Emphasis is placed upon state, county, and municipal governments. A study is made of the accounting system of the Federal Government. Prerequisite: Economics 57-58, and permission of the instructor. 3 s.h. (w)

 ASSISTANT PROFESSOR SHIELDS
- 275-276. Advanced Industrial Accounting and Management.—This course traces the ways and means of executive control through statistics and industrial accountancy. Emphasis is put upon the economics of overhead costs. A complete practice set of cost accounting is worked by each student during the course. Prerequisite: Economics 171-172 or permission of the instructor.

 6 s.h. (w)

 ASSOCIATE PROFESSOR BLACK

[Not offered in 1941-42]

B. COMMERCE AND INDUSTRY

11. Economic Geography.—A course in regional economic geography embracing the study of the world's major geographic regions, their present and potential production of food and raw materials for manufacture, and the relationships between these factors and the development of manufacturing industries, cities, and commerce. Offered both semesters. 3 s.h. (w & E)

ASSISTANT PROFESSOR LEMERT

- 105. Industrial Management.—A study of the organization and management of industry, with emphasis upon business application of the principles developed. Problems of the interrelation of functions operating in the several fields of management, such as production control, personnel, and the forecasting of business conditions. 3 s.h. (w)

 Drs. Berry and Keech
- 109. The Economic Geography of Latin America.—This course involves comprehensive study of the resources and people of Mexico, the West Indies, and Central and South America. Special emphasis is placed upon the possibilities and limitations of increases in trade between the United States and the leading Latin-American countries.

 Assistant Professor Lemert
- 115. Economic Geography.—Required of all students in Teaching Group, Class B. A study of geographic influences consisting of location, maps and their interpretation, climate, topography, soils, minerals, bodies of water, plants, animals, and the works of man. This course also has special value for those intending to specialize in foreign trade or the diplomatic service. 3 s.h. (E)

 ASSISTANT PROFESSOR LEMERT
- 116. Economic Geography and Industrial Organization.—Required of all students in Teaching Group, Class B. A study of the economic resources of the world; the products of the agricultural and manufacturing industries; trade routes and trade centers; and the influence of geographic factors on the economic development of nations. This course is also valuable for those intending to specialize in foreign trade or the diplomatic service. Prerequisite: Economics 115. 3 s.h. (E)

 Assistant Professor Lemert
- 118. Economic Geography of the South.—A study of the agricultural, commercial, and industrial development, with special emphasis upon the expansion of Piedmont industries. 3 s.h. (w)

 Assistant Professor Lemert

158. Insurance.—The development and basic principles of insurance. This course covers such topics as business uses, policy contracts, costs, and regulation of insurance. Life and fire insurance are emphasized. 3 s.h. (w)

DRS. BERRY AND KEECH

168. Marketing.—The topics covered in this course include the economic importance of markets and the marketing system; marketing functions, organization, and methods; price policies; finance; speculation; market research and the planning of marketing activities; cooperative marketing; criticisms of marketing and means for improvement; and regulation. 3 s.h. (w)

ASSISTANT PROFESSOR LANDON

- 181-182. Business Law.—The fundamental principles of law as applied to common business transactions. The topics presented are: contracts, agency, bailments, sales, negotiable instruments, partnership, corporations, and bankruptcy. 6 s.h. (w)

 Assistant Professors Eiteman and Springer
- 184. Commercial Law for Accountants.—A review and summation of commercial law principles as they apply to accounting theory and practice. Emphasis will be placed upon the commercial law sections of the Certified Public Accountant examinations. Students are admitted to the course by permission of the instructor. 3 s.h. (w)

 Associate Professor Black

DEPARTMENTAL MAJOR

Prerequisites: Economics 51-52, Principles of Economics. 6 s.h. This course is ordinarily taken in the Sophomore year.

Major Requirements: Twenty-four semester-hours in addition to Economics 51-52, to be arranged as follows:

(1) Economics 138.—Business Statistics.—3 s.h.

This course may be taken the second semester of the Sophomore year or during the Junior year. It may be taken by departmental majors in their Senior year only with permission of the Director of Undergraduate Studies.

(2) Senior-Graduate Courses.—6 s.h.

At least six semester-hours must be chosen from Senior-Graduate courses offered in Economics.

(3) Economics 280.—Advanced Economic Problems.—3 s.h.

This course is required of all majors in the Department and is also open to Seniors in the Business Administration Group. It may not be counted as part of the Senior-Graduate course requirement.

(4) Additional Course Work.—12 s.h.

In addition to the special requirements outlined under (1), (2), and (3) above, majors in the Department must elect twelve semester-hours from courses offered in Economics for Juniors and Seniors. Six hours of Accounting and six hours in Commerce and Industry may be counted toward the completion of this requirement.

(5) Additional work in the Department.

Twenty-four semester-hours of work in the Department is a minimum for a major in Economics. According to the general University regulations, however, majors may take additional work in the subdepartments (Accounting and Commerce and Industry) not to exceed a total in the Department and subdepartments of fifty-four semester-hours.

EDUCATION

PROFESSOR HOLTON, CHAIRMAN; PROFESSOR PROCTOR, DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANT PROFESSOR EASLEY, SUPERVISOR OF FRESHMAN IN-STRUCTION; PROFESSORS BROWNELL, CARR, AND CHILDS; ASSOCIATE PROFESSOR SCATES; DR. WATSON; MESSRS. REIN (PART-TIME) HARRIS (PART-TIME); AND MRS. SMITH; AND ASSISTANTS

Courses in the Department of Education are designed for two groups of students: (1) students with teaching experience or others who have definitely chosen teaching as their life-work, and (2) students who desire to study the

Students who do not expect to teach but merely desire an understanding of the school as part of a liberal education are advised to elect such courses as 4, 8, 54, 104, and 105 for their introductory work in the Department and then to elect further work in accordance with their special interests. Students who expect to engage in the various phases of teaching should plan their courses in accordance with the general regulations for Groups V and VI as outlined in this catalogue. Students preparing for college teaching should elect courses in the history and philosophy of education and in educational psychology.

1. Orientation Course in Study and Study Habits.—A course for Freshmen whose high-school and other records indicate the need of help in working out a satisfactory method of study. The factors of study, the use of textbooks, note-taking from lectures and parallel readings, and applications of the factors of study to the daily problems of the student are among the matters considered. Either semester. 3 s.h. (W & E)

ASSISTANT PROFESSOR EASLEY AND DR. WATSON

- 4. Introductory Course in History of Education.-A special section of course 54, for Sophomores and for Freshmen who have had course 8. 3 s.h. (E) ASSOCIATE PROFESSOR SCATES AND MR. REIN
- 8. The Learning Process.—A course in elementary educational psychology, required of all Freshmen and Sophomores entering Group VI. Either semester. 3 s.h. (W & E)

PROFESSORS BROWNELL AND CHILDS; ASSISTANT PROFESSOR EASLEY; DR. WATSON; MESSRS. HARRIS AND REIN

- 54. Introductory Course in History of Education.—A study of the types of educational systems and institutions evolved in Western Europe and the United States as an introduction to current educational problems. 3 s.h. (w) PROFESSORS HOLTON AND CARR
- 58. The Learning Process.—A special section of course 8, intended for Juniors. Either semester. 3 s.h. (E) first semester and (W) second semester. ASSISTANT PROFESSOR EASLEY
- 68. Mental Hygiene of the School Child.—A study of personality factors as related to the adjustment and success of the school child, the foundations of motivation; typical problems of maladjustment; social heredity and its educational implications; variations in intelligence. 3 s.h. (E) Assistant Professor Easley
- 83. Current Trends in American Public School Organization.—A study of current controversies and criticisms bearing on the organization and administration of the public schools, recent developments in the organization of schools, and the theories underlying these developments. 3 s.h. (E) Professor Proctor

EDUCATION

101. Introduction to Teaching.—A survey of the work of the teacher based upon a general theory of the learning and teaching process. Preliminary discussion of the qualifications and training of teachers and the nature and aims of education. Development of a theory of the curriculum; discussion of the nature of subject matter as related to pupil activity; modern classroom procedure in teaching, including an introduction to educational measurements. 3 s.h. (E) PROFESSOR CARR

103. School Organization and Administration for the Classroom Teacher .-Either semester. 3 s.h. (W) first semester and (E) second semester.

PROFESSOR PROCTOR

75

104. History of Education in the United States .- A special section of course 214, intended primarily for Juniors. 3 s.h. (E) first semester.

Associate Professor Scates

- 105. Introduction to Educational Sociology.—A study of social forces, processes, and values as affecting education, and the interaction of school and community. 3 s.h. (E) Professor Childs
- 112. Methods of Teaching and Presentation of Subject Matter in the Primary Schools.—A study of materials and methods in the primary school subjects with special reference to reading, language, number, and the social studies; introduction to the psychology of the primary school branches; practice in using educational tests. A minimum of thirty laboratory periods of observation and practice-teaching. Prerequisite: course 101. For Seniors only. PROFESSOR CARR 4 s.h. (E)

[Not offered in 1941-42, unless as many as eight students enroll.]

A. Integrated Art in the Public School.—This course consists of three semester-hours of work in materials and methods. (Required of all students completing requirements in Group VIB, Elementary School Teaching, of the "Groups of Studies for the Degree of Bachelor of Arts.") For Juniors and Seniors. (E) Mrs. Mason

[Not offered in 1941-42, unless as many as eight students enroll.]

B. Industrial Art in the Public School.—This course consists of three semester-hours of work in materials and methods. (Required of all students completing requirements in Group VIB, Elementary School Teaching, of the "Groups of Studies for the Degree of Bachelor of Arts.") For Juniors and Mrs. Mason Seniors. (E)

[Not offered in 1941-42, unless as many as eight students enroll.]

115-116. Secondary Education: Principles and Practice.—The study of the nature, scope, and methods of secondary education, emphasizing fundamentals of the teaching process and exemplifying theory by practice. Sixty hours of observation work and thirty hours of supervised practice teaching required. Students preparing to teach in the junior high school are permitted to concentrate in that field. Students must arrange their schedule to permit four hours of observation, conference, and practice teaching weekly. Since practice-teaching facilities are limited, students with superior record will be given preference in the practice teaching. No student who has not passed the work of the Junior year at Duke University with an average of at least one and one-half quality-points will be permitted to do practice work. Students who have the required average in quality-points must before February 1 pass with grade of "B" or better, examination in the subject they expect to teach, based upon course of study of the school in which they expect to do their practice teaching. Before entrance into practice-teaching students must complete thirty hours of observation under supervision. Their first five hours of practice must be satisfactory to the instructor directing observation and to the teacher of the class taught before they can continue the thirty hours of practice teaching required by the course. For Seniors only. 6 or 8 s.h. Section one (for teachers of English and foreign language.) (E) Section two (for teachers of other subjects). (w) PROFESSOR CHILDS AND ASSISTANTS

- 118. Educational Implications of Genetic Psychology.—A course tracing the development of the individual through the stages of growth and learning, with emphasis upon early and later childhood; the development of such behavior patterns as play, language, etc.; the process of socialization; and similar material of especial significance to teachers in the elementary schools. 3 s.h. (w) PROFESSOR BROWNELL
- 122. Methods of Teaching and Presentation of Subject Matter in the Grammar Grades.—A study of materials and methods in the grammar grade subjects with special reference to reading, language, number, and the social studies; introduction to the psychology of the grammar grade branches; practice in the use of educational tests. A minimum of thirty laboratory periods of observation and practice teaching. Prerequisite: course 101. For Seniors only. 4 s.h. (E) Professor Carr
- 131. Observation and Practice-Teaching.-Open to Seniors who are enrolled in course 101. Separate work for primary and grammar grade teachers. 1 s.h. (E) PROFESSOR CARR
- 132. Materials and Methods in Health Education .- Identical with Health Education 132. 3 s.h. (w) Assistant Professor Aycock
- 136. The Teaching of High-School English.—Identical with English 142. Assistant Professor Iordan For Seniors only. 3 s.h. (E)
- 142. Children's Literature.—Students enrolled will be allowed to specialize in literature of either the primary or grammar grades. First semester. 3 s.h. PROFESSOR CARR (E)
- 155. The Teaching of Secondary School Latin.—Identical with Latin 109. For Seniors only. 3 s.h. (w) Assistant Professor Gates
- 158. Educational Measurements.—A special section of 258, intended for undergraduates. Principles and technique involved in measurements in education. First semester. 3 s.h. (E) Associate Professor Scates
- 170. The Social and Economic Position of Women.-A course in vocational guidance for women counting as a general elective, but not as part of either a major or minor in Education or towards a North Carolina State teacher's certificate. The purpose of the course is to give the historical background of the changing social and economic position of women, the contributions made by outstanding women, and the vocational opportunities open to women. 2 s.h. (E) Mrs. Smith
- 176. Materials and Methods in High-School Science.—Discussion, based upon lectures and collateral reading, of such topics as aims, tests for values, the curriculum, classroom procedure, course and lesson planning in secondary-school science. Prerequisite: at least eighteen hours of science in college. For Seniors only. 3 s.h. (w) Professor Childs

[Not offered in 1941-42]

200. Introduction to the Philosophy of Education.-3 s.h. (w) [Not offered in 1941-42] PROFESSOR HOLTON

203. Principles of School Administration .- Prerequisite: six semesterhours of courses 103 and 58 or their equivalent. 3 s.h. (w)

PROFESSOR PROCTOR

205. Curriculum Problems in Secondary Education.—A consideration of the aims and objectives of secondary school subjects, emphasizing practical problems of curriculum-making in the high school. 3 s.h. (E)

[Not offered in 1941-42] Professor Childs

206. Sociological Foundations of the Secondary School Subjects.—A consideration of the aims and objectives of secondary school subjects, emphasizing problems of curriculum-making. Prerequisite: general sociology or approved work in education, including course 105. 3 s.h. (w)

[Not offered in 1941-42] Professor Childs

- 207. Technique of Teaching.—An advanced course in the teaching process, dealing with the theory underlying sound technique and applied specifically to the work of the elementary school. 3 s.h. (E)

 PROFESSOR CARR
- 208. Mental Tests and Applications.—A study of the development of intelligence testing, the concept of general intelligence, various recent applications of mental tests, and training in the giving of individual tests. Prerequisite: course 258 or six semester-hours of other work in educational psychology or psychology. 3 s.h. (E)

 Assistant Professor Easley
- 209. Statistical Methods Applied to Education.—A study of statistical methods of treating educational and social data designed to enable teacher or administrator to interpret and use the results of scientific investigations in education. 2 s.h. (E)

 Associate Professor Scates
- 212. Psychology of the Elementary School Subjects.—A study of the psychology of learning as applied to teaching the common school subjects.

 3 s.h. (E)
 PROFESSOR CARR

[Not offered in 1941-42]

- 214. History of Education in the United States.—A study of the development of the American public school and the interaction of higher education and the public school. 3 s.h. (w)

 [Not offered in 1941-42]
- 216. Psychological Principles of Secondary Education.—A study of adolescence and the psychology of learning as applied to teaching the principal high-school subjects. 3 s.h. (w)

 Professor Childs
- 217. Advanced Educational Psychology.—A systematic survey of the field of educational psychology, required of all majors in that field. 3 s.h. (E)

 PROFESSOR BROWNELL
- 218. Educational Implications of Genetic Psychology.—Special section of course 118, intended primarily for graduate students, ordinarily not offered the same year in which 118 is given. Prerequisite: six semester-hours of psychology or educational psychology. 3 s.h. (E)

 [Not offered in 1941-42]
- 219. Experimental Education.—The course is designed to provide training (1) in planning, (2) in prosecuting, and (3) in reporting quantitative investigations in the field of education, more especially in the field of learning and teaching the various school subjects. 3 s.h. (E) PROFESSOR BROWNELL
- 222. The Curriculum and Materials of the Elementary Grades.—A study of curriculum problems in the elementary school. First semester. 3 s.h. (E)

 PROFESSOR CARR

- 225. The Teaching of History and the Social Studies.—Identical with History 211. The course counts as an elective in the Department of Education only when approved by the Department and the instructor. 3 s.h. (w)
 - Assistant Professor Manchester
- 227. The Psychology of Learning: Problems.—The major problems related to the learning process will be examined, with the experimental literature bearing on them. The curves of learning and forgetting, the distribution of practice, economical methods of learning, and the transfer of training will be the major topics considered. 3 s.h. (E) Assistant Professor Easley [Not offered in 1941-42]
- 228. The Psychology of Learning: Theoretical and Experimental.—This is a continuation of course 227. In this semester the laws of learning, the most important explanatory principles, and the major systems of the psychology of learning will be considered. Class experiments will run throughout the semester. Prerequisite: course 227 or its equivalent. 3 s.h. (E)

Assistant Professor Easley

- 232. Elementary School Supervision.—A survey of supervision as a means of improving instruction and adapting the curriculum to child and community PROFESSOR CARR needs. 3 s.h. (E)
- 233. Administrative Pupil-Accounting.—An advanced study of gradation and classification of pupils, with incidental attention to the keeping of records and the making of reports. The study includes a consideration of individual differences, promotions, acceleration, and retardation of pupils; the various plans for classification and gradation; interpreting the results of tests; and some practice in the computation of statistical measures. 3 s.h. (w)

[Not offered in 1941-42] Professor Proctor

- 234. Secondary School Organization and Administration.—A study of the outstanding problems of secondary school organization and administration other than the problem of gradation and classification of pupils. 3 s.h. (w) PROFESSOR PROCTOR
- 237. Investigations in Reading.—A summary of the results of the more important scientific studies in reading; interpretation of the results in terms of aims, methods, materials of instruction, testing diagnosis, and supervision; emphasis on problems requiring further investigation. 3 s.h. (E) Professor Carr [Not offered in 1941-42]
- 244. Studies in the Historical Development of Public School Administration.—An advanced course devoted to the development of public school administration in the South, with especial reference to North Carolina as a type. 3 s.h. (w) Professor Holton [Not offered in 1941-42]
- 246. The Teaching of Mathematics.—Identical with Mathematics 204. The course counts as an elective in the Department of Education only when approved by the Department and the instructor. 3 s.h. (E) PROFESSOR RANKIN [Not offered unless enrollment justifies.]
- 247. Investigations in Arithmetic.—An analytical survey of investigations in arithmetic, with three purposes in view: (1) to examine the techniques employed with respect to their adequacy as means of solving the problems attacked; (2) to test the validity of the results announced and the values of these results for the teaching of arithmetic; (3) to locate further problems in arithmetic in need of scientific research. 3 s.h. (w) PROFESSOR BROWNELL

253. Legal Phases of School Administration.—A study of judicial decisions and the development of outstanding features of statute law controlling school administration, with special emphasis upon North Carolina materials. 3 s.h. (w) Professor Holton

[Not offered in 1941-42]

- 254. History of Secondary Education in the United States.—A study of historical and comparative conceptions of the secondary school, changes in American life affecting the secondary school, present status of the secondary school, current tendencies toward expansion, and the problem of state and federal aid. First semester. 3 s.h. (w) Professor Proctor [Not offered in 1941-42]
- 258. Educational Measurements.—A critical study of the principles and techniques involved in measurement in education, with opportunity for individual research. Prerequisite: twelve semester-hours in the Department, including a course in educational psychology. 3 s.h. (E)

ASSOCIATE PROFESSOR SCATES

- 264. Recent Movements in American Education.—An intensive study of educational thought and practice since 1900. 3 s.h. (w) PROFESSOR HOLTON
- 266. The Teaching of High-School French.—Identical with French 217. 3 s.h. (w) Professor Webb
- 294. Comparative Education: Recent Movements in European Educational Systems.—A comparative study of the school systems of the principal countries of Europe, with emphasis upon changes since the World War. First semester. 3 s.h. (w) PROFESSOR CARR

[Not offered in 1941-42]

DEPARTMENTAL MAJOR

A major in the Department of Education consists of twenty-four semesterhours of work above the Freshman year, not including any work listed as primarily for Freshmen, and including at least six semester-hours of courses limited to Seniors or to Seniors and Graduates. Students, however, who obtain limited to Seniors or to Seniors and Graduates. Students, however, who obtain credit for courses 4 and 8 will be permitted to complete a major by taking twenty hours of additional work in the Department, provided twelve hours are courses limited to Seniors or to Seniors and Graduates. Before graduation, majors in the Department must have credit for at least one course in educational psychology, such as 8, 58, or 68, and one course in history and philosophy of education, or in educational sociology. The remainder of their work may be elected from courses listed for Sophomores, Juniors, and Seniors, received at least oir remeater hours of the course works are taken from courses. provided at least six semester-hours of the course work are taken from courses listed for Seniors and Graduates, and provided that not more than six semesterhours may be of courses numbered below 100.

DEPARTMENTAL HONORS PROGRAM

Students may become candidates for Honors in education who have passed with grade of "B" or better in their Freshman or Sophomore years six semes-

ter-hours of education.

Candidates for Honors in education are required to take in the Junior year twelve semester-hours in the Department and to make an average of "B" or better on this work. The remaining work in the Junior year will be chosen from related work and other electives with the consent of the Departmental Committee on Honors. In the Senior year, in addition to the equivalent of twelve semester-hours of supervised reading in education, the candidate must elect with the approval of the Departmental Committee on Honors six semester-hours of supervised reading in education, the candidate must elect with the approval of the Departmental Committee on Honors six semester-hours of supervised reading in education, the candidate must elect with the approval of the Departmental Committee on Honors six semester-hours of supervised reading in the 200 six semester-hours of supervised ter-hours of work from the courses in education offered in the 200 group, on

which he is required to make a grade of "B" or better and twelve semesterhours of related or other elective work.

Of the supervised reading, which shall be done under the immediate supervision of members of the Departmental Committee on Honors, the equivalent of six semester-hours shall be devoted to the History of Education; the remaining six semester-hours shall be devoted to Educational Psychology, or Secondary Education, or Elementary Education, or Public School Administration as the student may elect and the Departmental Committee approve. In exceptional cases, qualified students may be permitted to take six semester-hours of the supervised reading during the Junior year and increase the amount of course work in the Department the Senior year.

At the conclusion of the work the student shall be given an oral examination by a committee of three, consisting of the two members of the Departmental Committee on Honors in charge of his supervised reading and another member of the Department selected by the Departmental Committee.

ENGLISH

PROFESSOR BROWN, CHAIRMAN; PROFESSOR GREENE, DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANT PROFESSOR SANDERS, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS BAUM, GILBERT, GOHDES, HUBBELL, IRVING, AND WHITE; ASSOCIATE PROFESSORS ANDERSON, BLACKBURN, PATTON, AND MITCHELL; ASSISTANT PROFESSORS ALLEN, HERRING, JORDAN, SUGDEN, VANCE, WARD, WEST, AND WHITE; DRS. CARPENTER, HARWELL, AND POTEAT; MESSRS. BRICE, DOWLING, FITZGERALD, LEWIS, AND MARTIN

COMPOSITION

1-2. English Composition.—All Freshmen are required to take course 1 and course 2.

Students in courses 1 and 2 who fail to earn an average grade of "C" on the work of both semesters and at least a grade of "C" on the work of the spring term are required to do the work of English 53 during their Sophomore year. Those who do not earn a grade of "D" during the first semester are required to repeat during the spring course 1; if they earn a grade of "D" or more at the end of the spring semester, they receive credit for the first half-year of work, and during their Sophomore year they are required to do the work of English 2. Students whose grades for both semesters fall below "D" must repeat the entire course during their second year. 6 s.h. (E & w)

Associate Professors Anderson, Blackburn, and Patton; Assistant Professors Allen, Sanders, Sudden, Vance, Ward, and White; Drs. Carpenter, Harwell, and Poteat; Messrs. Brice, Dowling, Fitzgerald, and Martin

- 53. English Composition.—A second course in composition. Offered again in the second semester. 3 s.h. (w & E)

 Assistant Professor Jordan
- 54. Composition.—This is a practical course in composition for those who desire a greater mastery of, and facility in, the use of the language than they get from English 1-2 and 53. 3 s.h. (w)

 Assistant Professor Jordan
- 65-66. Approaches to Imaginative Writing.—This course stresses the essentials of imaginative writing with the aim particularly to develop skill in description and characterization in writing prose and skill in the writing of poetry. The work includes also the analysis of selected models. The number of students in this course is limited, and all must have the consent of the instructor. Open to Sophomores and in special cases to Freshmen. 6 s.h. (w)

 Assistant Professor Sanders and Dr. Carpenter

ENGLISH 81

- 101-102. Composition.—This work is planned for those who have done good work in the required courses in composition. Students who wish to take this course must have made a grade of "B" or better in English 1-2 or they must have credit for English 1-2 and English 53. The number of students is limited, and all must have the consent of the instructor. Open to men and women. 6 s.h. (w) ASSOCIATE PROFESSOR MITCHELL
- 103-104. Composition.—Instruction in this course is concerned largely with descriptive and narrative writing. Only students who are able to write with facility and correctness are expected to enroll; they must have the consent of the instructor. Open to women and men. 6 s.h. (E)

Associate Professor Blackburn

107-108. Journalism.—'The first semester is devoted to news-writing and copy-reading; the second semester, to the writing of feature articles and editorials. Assistant Professor Sugden

133-134. Verse-Writing.—See description of this course on page 82. [Not offered in 1941-42] PROFESSOR WHITE

DRAMATICS AND SPEECH

- 105-106. Play-Writing.—The work of this course is concerned chiefly with the technique of the one-act play though study is made also of the longer forms. Worthy plays written by students are presented by the members of the play-production course. Open also to Sophomores approved by the Dean. 6 s.h. (w) Assistant Professor West
- 119-120. History of the Theater.—A study of the development of the theater, of methods of production, and of representative plays of the various periods from the time of the early Greeks to the present day constitutes the work of this course. Open also to Sophomores approved by the Dean. 6 s.h. ASSISTANT PROFESSOR WEST (w)
- 121-122. Play-Production.—This is a course dealing with the theory and practice of producing plays. The work includes make-up, lighting, scenedesign and painting, costume, directing, and stage-management. Plays are studied with a view to producing them. There is practice work both in the laboratory and in the theater. Open also to Sophomores approved by the ASSISTANT PROFESSOR WEST Dean. 6 s.h. (w)
- 139-140. The Speaking Voice.—This course gives training in placement. pitch, range, and diction for use in professional work and in daily conversation. Open to all undergraduates with the approval of the Dean. 6 s.h. (w) Assistant Professor West

FOR SOPHOMORES, JUNIORS, AND SENIORS

- 151. Speech .- A course in the fundamentals of public speaking with emphasis upon the effective presentation of ideas. 3 s.h. (w & E) ASSISTANT PROFESSOR HERRING AND MR. LEWIS
- 152. Argumentation.—A course dealing with the principles of argumentation and debating with special emphasis upon brief-making and practicespeaking. Public questions are studied as parallel work. Prerequisite: English Assistant Professor Herring and Mr. Lewis 151. 3 s.h. (w)

ENGLISH AND AMERICAN LITERATURE AND LANGUAGE

55-56. Representative Writers .- 6 s.h.

PROFESSOR IRVING, ASSOCIATE PROFESSOR BLACKBURN, ASSISTANT PROFESSORS SANDERS, SUGDEN, VANCE, WARD, AND DR. POTEAT 63-64. A Survey of English Poetry.—6 s.h. (w & E) ASSOCIATE PROFESSOR MITCHELL

123-124. Shakespeare.-6 s.h. (w)

Professor Brown

125-126. English Literature, 1789-1832.—6 s.h. (w & E)

Professor White, Associate Professor Patton. AND ASSISTANT PROFESSOR WHITE

127-128. English Prose Literature, 1832-1900.—6 s.h. (w)

Professor Greene

129-130. The History of the Novel in England.—6 s.h. (w & E) ASSOCIATE PROFESSOR MITCHELL AND ASSISTANT PROFESSOR VANCE

133-134. Verse-Writing.—This work is offered each year for not less than three or more than six students, who must make to the instructor written application accompanied by some original verse. Open to Seniors, Juniors, and in exceptional cases to Sophomores. 3 s.h. (w)

PROFESSOR WHITE [Not offered in 1941-42]

137-138. American Literature.—6 s.h. (w & E)

Professors Hubbell and Gohdes and Associate Professor Anderson

142. Materials and Methods in High-School English.—Second semester. ASSISTANT PROFESSOR JORDAN 3 s.h. (E)

145-146. English Poetry, 1832-1900.—6 s.h. (w)

ASSISTANT PROFESSOR SANDERS

147-148. Contemporary Poetry.—Open also to Sophomores recommended by the Dean. 6 s.h. (w) Associate Professor Anderson [Not offered in 1941-42]

153-154. Comparative Literature.—Readings in important texts of English and continental literature (in translation); studies in types. 6 s.h.

PROFESSOR IRVING

155-156. Contemporary Drama.—Open to Junior and Senior women and to those Sophomores recommended by the Dean.— 6 s.h. (E) Assistant Professor White

157-158. Contemporary British and American Fiction.-Open also to Sophomores recommended by the Dean. 6 s.h. (w)

[Not offered in 1941-42] Associate Professor Anderson

159-160. English Literary Biography.-6 s.h. (w) PROFESSOR WHITE

161-162. The History of the English Language.—This work is strongly recommended for all majors in English. Professor Greene

FOR SENIORS AND GRADUATES

201-202. Anglo-Saxon.—The first half of the year is given to the reading of prose and to a study of the language; the second half, to the reading of Beowulf. 6 s.h. Professor Brown

203-204. Chaucer.—The work consists of the reading and study of the principal Canterbury Tales, the Troilus, the minor poems, and some of the translations. Students prepare a reading report and a term paper. 6 s.h.

PROFESSOR BAUM

207-208. English Literature, 1400-1550.—6 s.h. [Not offered in 1941-42]

PROFESSOR BAUM

English 83

209-210. English Literature, 1625-1700.-6 s.h. Assistant Professor Ward

211-212. Nondramatic English Literature, 1550-1625.—3 s.h.
[Not offered in 1941-42] ASSISTANT PROFESSOR ALLEN

- 213-214. Folk-Lore and Folk-Songs.—The first half of the work consists of an extensive study of the field of folk-lore; the second, of the ballad and other folk-songs. 6 s.h.

 PROFESSOR BROWN
 - 215-216. Elizabethan Drama.—6 s.h. (w) Assistant Professor Allen
- 217. Spenser.—In this course the students study the works of Spenser, giving especial attention to the major poems. 3 s.h. (w) PROFESSOR ALLEN [In 1941-1942 English 217 is offered during the spring semester.]
- 218. Milton.—A detailed study of Milton's prose and poetry with emphasis upon the major poems constitutes the work of this course. There are frequent written reports and a term paper. 3 s.h. (w)

 Professor Gilbert [In 1941-1942 English 218 is offered during the fall semester.]
- 219-220. English Literature of the Eighteenth Century.—The prose and poetry of the age of Pope are reviewed in the first semester, of the age of Johnson in the second. Term papers are required. 6 s.h. (w)

[Not offered in 1941-42] Professor Irving

227-228. Literary Criticism.—This work consists of a study of the history of literary criticism from Aristotle to the present. There are oral and written reports and term papers. 6 s.h.

[Only 227 offered in 1941-42]

229-230. American Literature, 1800-1870.—This work consists of a survey of the principal writers of the period. There are two oral reports and a term paper each semester. Seniors must have credit for English 137-138 or its equivalent. 6 s.h. Professor Hubbell and Associate Professor Anderson

231-232. Special Studies in American Authors.—6 s.h. Professor Gohdes [Only 231 offered in 1941-42].

233-234. American Literature since 1870.—The work is a survey of the period, including the writings of a few of the most important living authors. One term paper each semester. 6 s.h.

Professor Gohdes and Associate Professor Anderson

239-240. Shakespeare Problems.—Students should have read the principal plays before entering the course. 6 s.h. (w)

[Not offered in 1941-42]

269. Southern Literature and Culture.—3 s.h. Professor Hubbell [In 1941-1942 English 269 is offered in the spring semester.]

DEPARTMENTAL MAJOR

Prerequisites: English 1 and 2.

Requirements for the Major: A major in English consists of twenty-four semester-hours of credit distributed as follows: six hours must be earned in English 55-56 or in English 63-64 and eighteen hours credit, in courses in English and American literature of the 100 or 200 group.

DEPARTMENTAL HONORS PROGRAM

(a) Prerequisite: The minimum requirement for admission to Honors in English is the completion of a Sophomore course in English literature on which the student makes at least a grade of "B."

(b) Honors Readings:

(1) The Elizabethan Period and the First Half of the Seventeenth Century.—The Bible; Shakespeare and Elizabethan drama; Spenser; Donne; Bacon and other writers of prose.

Professor Irving and Assistant Professor Ward

(2) English Literature from the Restoration to the Death of Pope.— Milton; Dryden; the Comedy of Manners; Swift; Defoe; Addison and Steele; Pope. Professor Irving and Assistant Professor Ward

(3) English Literature, 1774-1832.—Fielding; Johnson; Wordsworth;

Byron; Shelley; Keats; Lamb; Hazlitt.

Associate Professors Blackburn and Patton

(4) English Literature, 1832-1900.—Carlyle; Tennyson; Browning; Arnold (poetry and prose); Ruskin; Morris; Pater.

Associate Professors Blackburn and Patton (c) Two year-courses in the Department of English (under certain conditions work in related departments may be substituted for this requirement).

(d) Four year-courses in related departments.

(e) General Honors Examinations: Four comprehensive written examinations and a supplementary oral examination are held at the end of the Senior year to test the student's knowledge of the four periods of English literature studied. Students may substitute for one of the written examinations a special thesis on a topic correlating English literature with a related field of knowledge or on any other approved topic.

FINE ARTS

ASSISTANT PROFESSOR MCDONALD, CHAIRMAN; ASSISTANT PROFESSOR HALL, DIRECTOR OF UNDERGRADUATE STUDIES; DR. SUNDERLAND; MISS ROBINSON

The purpose of the courses in the Department is so to train the student's eye by directed study of characteristic examples of the historic styles that he may apply his own standards of judgment to less familiar works either of the past or of the present. The advanced courses cover only the post-classical field to avoid duplication of courses in other departments.

- 1-2. History of Art.—The survey course for Freshmen is designed to help the new student in relating the different manifestations of art in each period with the civilization which produced them. There are two lectures and one period of discussion each week, enabling the student to get a perspective on the whole problem in the light of his individual interests and abilities. 6 s.h.

 (E)

 MISS ROBINSON
- 51-52. History of Art.—The survey course for upperclassmen treats each art as a unit, relating it to its background and its companion arts wherever possible, but leaving many of the problems of correlation to the initiative of the student. The development of architecture is considered in course 51, the development of sculpture and painting in course 52. Courses 51 and 52 are both offered each semester. They are not open to Freshmen nor to students who have had course 1-2. Credit for a single semester will be given only to students electing it during their last semester as undergraduates. 6 s.h. (w & E)

 51, Assistant Professor Hall

52, Assistant Professor McDonald

53-54. Theory of Representation and Design.—A consideration of the general theory of tone relations, of the different modes of representation, and of the theory of design. The course aims to give a thorough understanding of the principles governing the art of drawing and painting as practiced in the past and at the present time. One lecture and four laboratory hours. Open only to students who are enrolled in, or have already completed, a year-course in the Department. 6 s.h. (E)

91. (Old number, 95.) Art of the Near and Middle East.—A study of the art and architecture of the Islamic World and of India as it reflects the culture, the religion, and the philosophy of the major periods. Open without prerequisite to Seniors, Juniors, and Sophomores. 3 s.h. (E)

Assistant Professor McDonald

- 92. (Old number, 97.) Art of the Far East.—A study of the art and architecture of China, Korea, and Japan. Special attention is given to the historical background, and the religious and philosophical developments underlying the artistic changes. Open without prerequisite to Seniors, Juniors, and Sophomores. 3 s.h. (E)

 ASSISTANT PROFESSOR MCDONALD
- 94. (Old number, 93.) American Painting and Sculpture.—A study of the development of American painting and sculpture from the beginnings in the Colonial period to the present day, with emphasis on the gradual emergence of a national style. Open without prerequisite to Seniors, Juniors, and Sophomores. 3 s.h. (E)

 MISS ROBINSON
- 101. Medieval Architecture.—A survey of Christian architecture in the Near East and in Western Europe from its origin in the late classic period to its disintegration in the fifteenth century. Prerequisite: 1-2 or 51. 3 s.h. (E)

 DR. Sunderland
- 103. Renaissance and Baroque Architecture: Italy.—A study of architecture in Italy from Brunelleschi to Bernini, developed through the works of individual architects and their schools. Prerequisite: 1-2 or 51. 3 s.h. (E)

 Assistant Professor Hall
- 104. Renaissance and Baroque Architecture: Spain and the North.—An inquiry into the extension of Italian Renaissance and Baroque influence in architecture, and its modification under local conditions elsewhere in Europe. Prerequisite: 1-2 or 51. 3 s.h. (E)

 [Not offered in 1941-42]

 Assistant Professor Hall
- 105. European Architecture since 1700.—An analysis of the sources of contemporary European architecture in the historic revival styles and counterrevolts, technical invention and new structural materials, industrial expansion and social planning. Prerequisite: 1-2 or 51. 3 s.h. (E)

 [Not offered in 1941-42]

 Assistant Professor Hall
- 106. Architecture of the Americas.—A study of building in the Western Hemisphere from the pre-Columbian cultures to the present, with emphasis on the architecture of the United States since the Revolution. Prerequisite: 1-2 or 51. 3 s.h. (E)

 Assistant Professor Hall
- 110. (Old number, 120.) English Architecture.—A survey of architecture in Great Britain from the Roman occupation to the present. Prerequisite: 1-2 or 51. 3 s.h. (E)

 Assistant Professor Hall
- 121. (Old number, 102.) Medieval Art.—A study of the art and culture of Medieval Europe from pre-Carolingian sources to the collapse of Feudal Europe in the fifteenth century, with emphasis on cultural background, and the religious and philosophical changes underlying the artistic evolution of the period. Open without prerequisite to Seniors and Juniors recommended by the Dean. Prerequisite for Sophomores: 1-2 or 52. 3 s.h. (E)

 ASSISTANT PROFESSOR McDonald
- 123. (Old number, 107.) Renaissance Painting and Sculpture: Italy.—A study of Italian painting and sculpture, mainly in Florence, from the end of the fourteenth through the fifteenth century. Open without prerequisite to Seniors and Juniors, and to Sophomores recommended by the Dean. 3 s.h. (E)

 DR. SUNDERLAND

124. (Old number, 109.) Baroque Painting.—An analysis of the character and tendencies of seventeenth-century painting, mainly in Italy, with some reference to Spain and the Netherlands. Open without prerequisite to Seniors and Juniors, and to Sophomores recommended by the Dean. 3 s.h. (E)

DR. SUNDERLAND

125. (Old number, 108.) Renaissance Painting and Sculpture: the North.— A study of painting and sculpture in the Netherlands and Germany in the fifteenth and sixteenth centuries. Open without prerequisite to Seniors and Juniors, and to Sophomores recommended by the Dean. 3 s.h. (E)

Dr. Sunderland [Not offered in 1941-42]

130. (Old number, 110.) Painting since 1700.—An investigation of the development of painting from the eighteenth century through Picasso. Open without prerequisite to Seniors and Juniors, and to Sophomores recommended Dr. Sunderland by the Dean. 3 s.h. (E)

COURSES OFFERED IN OTHER DEPARTMENTS ACCREDITED IN THIS DEPARTMENT

Greek 141-142. Greek Art.

Greek 247-248. Greek Archaeology.

Latin 115. Architecture of Ancient Rome.

Latin 215. Introduction to Roman Art and Archaeology.

Latin 216. Topography and Monuments of Ancient Rome.

Philosophy 201-202. The Philosophy of Art.

Philosophy 213-214. History of Aesthetics.

Psychology 202. Psychology of Aesthetics.

DEPARTMENTAL MAJOR

Prerequisites: 1-2 or 51-52.

Major Requirements: 53-54, and eighteen hours in courses chosen from the departmental offerings, or from courses in other departments accredited in this Department.

FORESTRY

PROFESSOR KORSTIAN, CHAIRMAN; PROFESSORS BEAL, SCHUMACHER, WACKERMAN, AND WOLF; ASSOCIATE PROFESSORS HARRAR, MAUGHAN, AND THOMSON; ASSISTANT PROFESSOR COILE

Forestry 52 is open to all Sophomore, Junior, and Senior students in Duke University and is intended to afford a better understanding of trees and forests and of the economic and social importance of forests and forestry. The other courses are designed as part of a program of training in technical forestry leading to the professional graduate degree of Master of Forestry (see Bulletin of the School of Forestry). However, with the consent of the instructor in charge, certain of the forestry courses may be elected by students in other curricula provided they have had adequate preparation.

Students without a Bachelor's degree who are preparing for work in for-

estry as a profession should take the courses outlined in the pre-forestry

curriculum.

52. Principles of Forestry.—An introduction to forestry emphasizing the economic and social importance of forests and their influence on stream flow, water supply, soil, and erosion; brief studies of individual trees and the life history of forests and their reproduction, treatment, and protection; principal forest regions and timber trees of United States; a brief history of forestry in America and present-day forestry agencies. Work consists of lectures, assigned readings, and reports. Open to Sophomores, Juniors, and Seniors. 2 s.h. (w) Associate Professor Thomson Forestry 87

S150. Forest Surveying.—Application of plane surveying to forest problems; practice in making boundary and topographic surveys of forested tracts, using both intensive and extensive methods. Work includes use of transit, level, traverse board, topographic abney and slope tape, and aneroid barometer. Prerequisites: Civil Engineering, S110, Plane Surveying, or equivalent. Five weeks, eight hours a day, beginning June 19. 5 s.h. (w)

ASSOCIATE PROFESSOR MAUGHAN

S151. Forest Mensuration.—Field studies in methods of measuring content and growth of trees and forest stands; practice in timber estimating, log scaling, use of mensurational instruments, and collection of basic data. Four weeks, eight hours a day, beginning July 24. 4 s.h. (w)

PROFESSOR SCHUMACHER

- 211. Harvesting Forest Products.—Methods of harvesting and transporting to utilization plants all products obtained from forests, including saw logs, pulpwood, poles, ties, stave and veneer bolts, naval stores, distillation wood, and other commercial commodities with emphasis on application of methods best adapted to managed forests in important forest regions of North America and consideration of costs. 3 s.h. (w)

 PROFESSOR WACKERMAN
- 212. Forest Products Industries.—Preparation, manufacture, and use of tree products for all purposes including lumber, paper, naval stores, veneer, cooperage, boxes, distillation, and other specialized products with emphasis on methods of manufacturing and kinds of wood required for various commodities. Inspection of typical forest operations and forest products manufacturing plants in the South during two weeks of spring semester. Prerequisite: Forestry 211 or equivalent. 3 s.h. (w)

 PROFESSOR WACKERMAN
- 224. Forest Pathology.—Special reference to diseases of forest trees. Prerequisites: Botany 1 and 2, and Forestry 253-254, or equivalents. 4 s.h. (w)

 Professor Wolf
- 231. Forest Entomology.—Morphology, general classification, life histories, and control of insects injurious to forest trees, logs, and lumber. 3 s.h. (w)

 Professor Beal
- 251. Sampling Methods in Forestry.—Statistical background for solution of sampling problems with special reference to sample inventory of a forest property. Prerequisite: Forestry S151. 2 s.h. (w) PROFESSOR SCHUMACHER
- 252. Forest Mensuration.—Empirical equations and curve fitting appropriate for construction of timber yield tables, tree volume and taper tables; significance tests and graphical solution of equations. Assignments require operation of calculating machines. Prerequisite: Forestry 251. 2 s.h. (w)

 PROFESSOR SCHUMACHER
- 253-254. Dendrology.—Nomenclature, classification, and identification of woody plants with special reference to species indigenous to southeastern United States and other important forest regions of temperate North America. Laboratory and field work. Prerequisite: one year of botany. 4 s.h. (w)

 ASSOCIATE PROFESSOR HARRAR
- 257. Design of Forestry Experiments and Analysis of Data.—Role of experimental design in field and laboratory, and statistical analysis of data as aspects of scientific method in forest research. 5 s.h. (w)

 PROFESSOR SCHUMACHER
- 259. Wood Anatomy and Properties.—Anatomical, chemical, and non-mechanical physical properties of wood; macroscopic and microscopic identification of more important woods of the United States. Prerequisites: one year of botany and Chemistry 1 and 2, or equivalents. 3 s.h. (w)

 ASSOCIATE PROFESSOR HARRAR

- 260. Timber Mechanics.—Comprehensive study of mechanical properties of wood and factors affecting its strength; strength-moisture relationships; standard methods of timber testing and application of strength data in development of working stresses; use of graphic statics in analysis of stress in wooden structures. Prerequisites: Physics 1 and Forestry 259, or equivalents. 3 s.h. (w)

 Associate Professor Harrar
- 261. Forest Soils.—Origin, development, and classification of soils with special emphasis on those developed in climates supporting forests; morphological, physical, and chemical properties of soils in relation to growth of trees; field identification, field sampling, laboratory analysis, and interpretation of field and laboratory observations; interrelationships of soil and forest cover. Prerequisites: Chemistry 1 and 2, and Physics 1, or equivalents; physical geology and analytical chemistry are also desirable. 3 s.h. (w)

ASSISTANT PROFESSOR COILE

- 264. Silvics.—Ecological foundations of silviculture with special reference to forest site factors; influence of forests on their environment; growth and development of trees and stands; origin, development, and classification of forest communities; methods of studying forest environments. Desirable prerequisites: Plant physiology, plant ecology, and Forestry 253-254 and 261, or equivalents. 3 s.h. (w)

 PROFESSOR KORSTIAN
- 266. Forest Seeding and Planting.—Place of artificial regeneration in practice of forestry; reforestation surveys and plans; collection, extraction, cleaning, testing, and storage of forest tree seeds; direct seeding; nursery practice; forest planting. 2 s.h. (w)

 PROFESSOR KORSTIAN
- 273. Forest Protection.—Fundamental principles of forest protection; protection against atmospheric agencies, injurious plants, insects, domestic animals, and wild life; causes of forest fires and their prevention; presuppression activities; fire suppression; fire control costs and standards; fire plans. 2 s.h. (w)

 Associate Professor Thomson
- 276. Forest Policy.—Critical study of forestry movement and development of a forestry policy, particularly in United States; brief résumé of forestry in important foreign countries; public land laws of United States; development of federal and state forestry; forestry laws. 2 s.h. (w)

Associate Professor Thomson

279. Economics of Forestry.—Principles of forest economics. Economic and social values of forests; forest resources and wood requirements; economics of wood production and consumption; prices of forest products; forestry and public finance; forestry and land use; forestry credit; forest fire insurance; forestry as a private business enterprise. Prerequisite: at least one course in the principles of economics. 3 s.h. (w)

Associate Professor Thomson

GEOLOGY

ASSOCIATE PROFESSOR BERRY

51. General Geology.—This course is designed to give a general view of the surface features of the earth, their origin, structure, and materials. Illustrative materials are studied in the laboratory. Excursions are made to neighboring points where the principles of the science are studied in the field. Three one-hour lectures or recitations and one three-hour laboratory. 4 s.h. (w)

ASSOCIATE PROFESSOR BERRY

52. General Geology.—This course is designed to give some knowledge of the chief events of the earth's history. Excursions will be made to suitable neighboring localities. Three one-hour lectures or recitations and one three-hour laboratory. Prerequisite; Geology 51. 4 s.h. (w)

ASSOCIATE PROFESSOR BERRY

101-102. Mineralogy.—This course is devoted to a study of the fundamentals of crystallography and the crystal groups, using crystal models and crystallized minerals. Followed by the systematic study of about 175 important minerals. Determinative work includes exercises on sight recognition, identification by blowpipe, and other physical and chemical tests. Excursions will be made to neighboring mineral localities. Three two-hour periods. Prerequisite: Chemistry 1-2 (can be taken concurrently). 8 s.h. (w)

ASSOCIATE PROFESSOR BERRY

- 151. Economic Geology.—Study of world distribution, geologic occurrence, and uses of important mineral deposits. Three two-hour periods. Prerequisite: Geology 101-102. 4 s.h. (w)

 Associate Professor Berry
- 152. Introductory Paleontology.—Systematic study of invertebrate paleontology, dealing mainly with generic characters of the fossil invertebrates and their use in identifying and correlating geologic formations. Three twohour periods. Prerequisites: Geology 51, 52 and Zoology 1. 4 s.h. (w) ASSOCIATE PROFESSOR BERRY

DEPARTMENTAL MAJOR

Prerequisites: None for Geology 51. Chemistry 1-2 for Geology 101-102; Zoology 1 for Geology 152.

Major Requirements: Geology 51, 52, 101-102, 151, 152.

GERMAN LANGUAGE AND LITERATURE

PROFESSOR VOLLMER, CHAIRMAN; ASSISTANT PROFESSOR MAXWELL, DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANT PROFESSOR WILSON, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS KRUMMEL AND WANNAMAKER; DR. SHEARS

Freshmen entering college with *two* units of German take German 3-4. Freshmen entering with *three* units must pass a qualifying examination in second-year college German if they desire to enter third-year college German (German 51-52) and complete their language requirement in one year.

Sophomores, who have passed German 1-2, take German 3-4. Those who have passed German 3-4, normally take German 51-52. Students in the Premedical Group, however, who have attained in their Freshman year an average of at least "C" in German 3-4 may go directly into German 107-108 (Scientific German) in their Sophomore year. Sophomores who passed German 51-52 in their Freshman year may take any course in the 100 group.

Juniors who desire to begin the study of German, may receive full advanced course credit by passing German 101-102. Those who have passed German 1-2, may take either German 3-4 or 103-104. Pre-medical Juniors, who received at least "B" in their Sophomore year in German 101-102, may enter German 107-108. Those who have passed German 3-4 or 51-52 may take any course in the 100 group. Those who have passed a 100 course, take any course in the 100 or 200 groups.

Seniors who desire to take one year of German, may receive full advanced course credit by passing German 101-102. Those who have passed German 1-2 or 101-102, take German 103-104. Those who have passed second-year college German here or elsewhere take any course in the 100 group. Seniors majoring in German and those who have passed third-year college German are expected to take courses in the 200 group.

Although courses in the 100 and 200 groups are regarded as full-year courses, one semester may be taken for 3 semester-hours credit with the consent of the instructor. The 100 courses (except 101-102, 103-104) are third-year German courses primarily for Juniors and Seniors. (See note on premedical Sophomores above.)

- 1-2. Elementary German.—6 s.h. (E & W)
 - Assistant Professor Wilson and Staff
- 3-4. Intermediate German.—6 s.h. (E & W)

PROFESSOR KRUMMEL AND STAFF

- 51-52. German Civilization.—(Third-year college German for Freshmen and Sophomores primarily.) A transition course between Intermediate German and the literary and scientific courses of the 100 and 200 groups. 6 s.h. (w)
- 101-102. Elementary German.—For Juniors and Seniors primarily. 6 s.h.
 (w) Assistant Professor Maxwell
- 103-104. Intermediate German.—For Juniors and Seniors primarily. 6 s.h. (w) Assistant Professor Wilson
- 107. Scientific German.—The German language as used in the various contemporary sciences. 3 s.h. (w)

 PROFESSOR WANNAMAKER AND ASSISTANT PROFESSOR MAXWELL
- 108. Advanced Scientific and Medical German.—Advanced scientific German with special emphasis on medical German. 3 s.h. (w)

 PROFESSOR WANNAMAKER AND ASSISTANT PROFESSOR MAXWELL
- 109-110. German Prose Fiction.—Origin and development of the German novel with special emphasis on the nineteenth century. 6 s.h.
- [Not offered in 1941-42] 6 s.h. Professor Krummel
- 111-112. Introduction to the Classic Drama.—Selected dramas from Lessing, Goethe and Schiller. 6 s.h. (E)

 Assistant Professor Wilson
- 113-114. Nineteenth-Century German Poetry.—In the first semester the lyric is studied and in the second semester the ballad. 6 s.h.
 [Not offered in 1941-42] Assistant Professor Wilson
- 115-116. German Drama of the Nineteenth Century.—A study of leading dramatists from Kleist to Hauptmann. 6 s.h. (w) Professor Krummel
- 119-120. Nibelungenlied to the Twentieth Century.—The great epochs in German literature studied through English translations. 6 s.h. (w)
 [Cannot be taken for foreign language credit.] PROFESSOR VOLLMER
- 121-122. Schiller.—A study of his life and works in relation to the culture of the eighteenth century. 6 s.h.

 [Not offered in 1941-42]

 [Not offered in 1941-42]
- 123-124. Modern German Short Story.—Development and technique of the novelle. 6 s.h.

 [Not offered in 1941-42]

 [Not offered in 1941-42]
- 125-126. Contemporary German Literature.—A study of representative works of the twentieth century. 6 s.h. (w) Dr. Shears
- 127-128. Survey of Nineteenth-Century German Literature.—Representative selections from all important literary schools from romanticism to contemporary realism. 6 s.h.

 [Not offered in 1941-42]
- 201-202. Goethe.—A study of Goethe's life and works, with special emphasis upon the broader aspects of his ever widening interests and literary activities. 6 s.h. (w)

 Professor Krummel
- 207-208. German Romanticism.—The course covers the entire field of German romanticism from 1800 to 1850. 6 s.h. (w) PROFESSOR VOLLMER

GREEK 91

209-210. Kleist, Grillparzer, and Hebbel.-The dramatic development in Germany after Schiller. 6 s.h. Professor Krummel [Not offered in 1941-42]

211-212. Heinrich Heine and Young Germany.—Heine's life and thought, culminating in the Jungdeutschland Movement. 6 s.h. PROFESSOR VOLLMER [Not offered in 1941-42]

213-214. Literature of the Empire, 1871-1914.—A study of the literature of this period as determined particularly by the philosophical, social, political, and religious factors. 6 s.h. (w)

Professor Vollmer

DEPARTMENTAL MAJOR

1. Prerequisites: German 1-2 and 3-4.

2. Major Requirements: Twenty-four hours in the German Department. Twelve of these must be selected from the 200 courses. The remaining twelve may be selected from German 51-52 and any courses in the 100 group except 101-102, 103-104 and 119-120.

HONORS IN GERMAN

Prerequisites:

1. For admission to candidacy for Honors in German, a student must have

begun the study of the language not later than the Freshman year in college.

2. A student who has completed at least 12 s.h. of college German by the end of the Sophomore year with a grade of "A" or "B" (equivalent courses in secondary schools or in other colleges may be presented as substitutes) is eligible to apply to the Departmental Committee for permission to read for Honors in German.

General Rules:

I. The Departmental Honors Program constitutes the work of the Honors student during the Junior and Senior years. This program shall be the

equivalent of sixty semester-hours of work.

II. Work in the German Department: The amount of work taken in the German Department shall be the equivalent of thirty-six semester-hours. Of this the work done in the Honors tutorials shall count twelve hours, six hours for the Junior year and six hours for the Senior year. The comprehensive examinations at the end of the Senior year are counted as part of this twelve semester-hours credit.

III. Related Work: The related work, which constitutes at least two fifths of the Honors program, that is, the equivalent of twenty-four semester-hours, must be distributed among not less than two departments, unless the Departmental Committee gives special permission for the student to take his related

work in one department.

IV. General Honors Examinations: In May of the Senior year the candidate will be given a general written examination, conducted by his Adviser, on his Honors Reading. A general oral examination, conducted by the Departmental Committee and presupposing a general knowledge of the development of German culture and civilization and a practical ability in the use of the German language, will also be conducted in May.

GREEK

PROFESSOR PEPPLER, CHAIRMAN, AND DIRECTOR OF UNDERGRADUATE STUDIES; DR. TRUESDALE, SUPERVISOR OF FRESHMAN INSTRUCTION; ASSISTANT PROFESSOR WAY

Courses 15, 121-122, 141-142, and 131 are entirely in English and require no knowledge of the Greek language. The purpose in offering them is to give a wider circle of students some conception of the debt which modern civilization owes to the Greeks.

- 1-2. Course for Beginners.—Open to all students. 6 s.h. (w)
 DR. TRUESDALE
- 53-54. Xenophon.—Anabasis, Books I-IV. Open to students who have completed course 1-2. 6 s.h. (w) Dr. Truesdale
- 105-106. Homer.—Iliad, Books I-VI. Open to students who have completed courses 1-2 and 53-54 or their equivalent. 6 s.h. (w)

 PROFESSOR PEPPLER AND DR. TRUESDALE
- 107-108. Plato.—Apology, Crito, and selections, together with collateral reading in the Memorabilia of Xenophon and in the Clouds of Aristophanes. Euripides.—One play to serve as an introduction to Greek tragedy. Open to students who have completed the required preliminary work. 6 s.h. (w)

 DR TRUESPALE
- 15. Mythology.—A study of Greek mythology and the use made of it in art and English literature. No knowledge of the Greek language is required. Open to Freshmen as an elective in either semester. 3 s.h. (w)

 DR. TRUESDALE
- 115-116. Sight Reading in Greek.—Three hours per week through the year. 4 s.h. (w)

 Assistant Professor Way and Dr. Truesdale
- 117-118. Greek Prose Composition.—The character of this course is determined by the needs of the students who elect it. 3 s.h. (w)

 PROFESSOR PEPPLER
- 121-122. Greek Literature in English Translation.—The purpose of this course is to give a general survey of the life and civilization of the Greeks, especially to those who have never studied the language but wish to become acquainted with some of the choicest portions of the literature by the use of translations. It is, however, open as an elective to all Juniors and Seniors, whether they know Greek or not. First, the Iliad and the Odyssey are read in translation and illustrated with stereopticon views of the excavations and discoveries at Troy and other cities of the Aegean age; then, many of the extant plays of the three great tragic poets are studied in English translations. 6 s.h. (w)

 PROFESSOR PEPPLER

The student may elect course 122, whether he has taken course 121 or not.

- 141-142. Greek Art.—Lantern lectures designed to provide a comprehensive survey of the development of Greek sculpture and Greek architecture in all periods. The course is opened by a preliminary account of Egyptian, Mesopotamian, and Aegean backgrounds. Open to Seniors, Juniors, and (by arrangement) Sophomores. No knowledge of Greek is required. 6 s.h. (w)

 Assistant Professor Way
- 131. History of Greece.—The history of the Greek world from the Late Bronze Age to the Macedonian conquest. Open to Seniors, Juniors, and (by arrangement) Sophomores. No knowledge of Greek is required. 3 s.h. (w)

 Assistant Professor Way
 - 201-202. Greek Tragedy.—Selected plays. 6 s.h. (w) Professor Peppler
 - 203-204. Homer.—Odyssey. Pindar and Bacchylides. 6 s.h. (w) Dr. Truesdale
- 205-206. Greek Historians.—Herodotus, Book VII; Thucydides, Book VII. 6 s.h. (w) Professor Peppler
 - 207-208. Greek Orators.—Selected speeches. 6 s.h. (w)
 Assistant Professor Way

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209-210. Plato.-Symposium, Protagoras, and parts of the Republic. 6 s.h. (w) ASSISTANT PROFESSOR WAY

- 211-212. Aristophanes.—Selected comedies. 6 s.h. (w) Professor Peppler Only one of the six year-courses for Seniors and Graduates (201-212), listed above, is offered each year.
- 243. Athenian Topography.—The topography and monuments of ancient Athens. 3 s.h. (w) ASSISTANT PROFESSOR WAY
- 244. Greek Epigraphy.—Lectures on the history of the alphabet and the development of the local Greek alphabets, followed by extensive reading of inscriptional texts in facsimile. 3 s.h. (w) ASSISTANT PROFESSOR WAY
- 245. Greek Dialects.—A linguistic study of transliterated inscriptions illustrative of the major Greek dialects. The interrelations of the dialectal forms are examined with reference, where possible, to their origin in proethnic Greek. 3 s.h. (w) ASSISTANT PROFESSOR WAY
- 246. Greek Historical Inscriptions.—The more valuable historical inscriptions are read in chronological order and interpreted in their general bearing upon the course of Greek history. 3 s.h. (w) ASSISTANT PROFESSOR WAY
- 247-248. Greek Archaeology.—Advanced course in the general field for Seniors and Graduates, comprising architecture, sculpture, vases, and the minor arts. 6 s.h. (w) ASSISTANT PROFESSOR WAY
- Of the courses numbered from 243 to 248 only two semester-courses are offered each year.

DEPARTMENTAL MAJOR

Prerequisite: Greek 1-2.

Major Requirements: A candidate for a major in Greek must complete twenty-four semester-hours, including the following courses: Greek 53-54, 105-106. 107-108, 117-118, and 131.

DEPARTMENTAL HONORS PROGRAM

For admission to candidacy for Honors in Greek the student must have completed Greek 1-2 and 53-54 or their equivalent.

Candidates for Honors must complete the following program of work:

(a) Greek 105-106, 131, 141-142, 107-108, 122, and 117-118.

(b) Four year-courses in related departments.

(c) The Honors Reading. This is tutorial work in which the student is required to read assigned portions of Greek literature by himself, to write papers on topics related to his reading, and to meet the Honors Adviser in weekly conferences for the discussion of the literature that he is reading independently. For the Honors Reading a credit of nine semester-hours is given. Students who enter the University with advanced standing in Greek take

higher courses in the language than those listed above.

At the end of the Senior year candidates for Honors must pass a comprehensive examination in writing on the subject-matter covered by their studies in Greek.

Graduates of Duke University may attend the American School of Classical Studies at Athens, Greece, without charge for tuition, and are eligible to compete for the fellowships that are offered annually by the School. These consist of two fellowships in Greek archaeology and one in the language, literature, and history of ancient Greece, each with a stipend of \$1,300. They are awarded mainly on the basis of examinations held in the beginning of February of each year.

HEALTH AND PHYSICAL EDUCATION

TRINITY COLLEGE

MR. WADE, DIRECTOR; MESSRS. AYCOCK, CALDWELL, CAMERON, CARD, CHAMBERS, COOMBS, CRICHTON, FOGLEMAN, GERARD, HAGLER, LEWIS, MONTFORT, PERSONS, STANLEY, WARREN

REQUIRED PHYSICAL EDUCATION FOR MEN

Six hours credit in physical education with an average grade of "C" must be completed for graduation. Three hours a week through the Sophomore year are needed to fulfill this requirement. All students must enroll in physical education until they have completed the requirement.

All students are required to take a medical and physical examination before registering. Those who reveal pronounced physical deficiencies are excused from regular courses in physical education and are required to take the course entitled "Individual Corrective Activities." Students assigned to this work continue to take it until they have been pronounced reasonably sound. Thereupon they withdraw from this course and register in the regular physical education course. A student may take from one to eight semesters of this special work. Students without defects may elect to take any four courses they choose. In general, these activities fall in one of three groups: those developing physical efficiency; those affording competitive contests; and those occupying recreative or leisure time. Since a student is not allowed to take the same course twice, he covers four courses in the two years of required work.

Students may receive physical education credit for participation in Freshman and varsity intercollegiate sports.

A regulation uniform, consisting of shirt, trunks, supporter, socks and sweat clothes, will be furnished each student upon payment of the Equipment and Recreation Fee and Laboratory Fee (see pages 156 and 157). Each student is required to provide rubber-soled shoes.

PHYSICAL EDUCATION CLASSES

1-2. Basketball.—1½ s.h.	Mr. Caldwell
3-4. Boxing.—1½ s.h.	Mr. Warren
5-6. Individual Corrective Activities.—11/2 s.	h. Mr. Aycock
7-8. Handball.—1½ s.h.	Mr. Gerard
9-10. Softball.—1½ s.h.	Mr. Stanley
11-12. Soccer Football.—11/2 s.h.	Mr. Gerard
13-14. Swimming.—1 ¹ / ₂ s.h.	Mr. Persons
15-16. Touch Football.—11/2 s.h.	Mr. Gerard
17-18. Tennis.—11/2 s.h.	Mr. Fogleman
19-20. Tumbling Stunts.—11/2 s.h.	Mr. Card
21-22. Track.—1½ s.h.	Mr. Lewis
25-26. Wrestling.—11/2 s.h.	Mr. Warren
27-28. Apparatus Stunts.—11/2 s.h.	Mr. Card
55-56. Individual Corrective Activities.—11/2	s.h. Mr. Aycock
59. Baseball.—1½ s.h.	Mr. Coombs
61-62. Golf.—1½ s.h.	R. CRICHTON AND MR. HAGLER

INTERCOLLEGIATE ATHLETIC SPORTS

	M	

30. Baseball.—11/2 s.h.

32. Basketball.—11/2 s.h.

37. Football.—11/2 s.h.

38. Football.—1½ s.h.

41. Cross Country.—11/2 s.h.

42. Swimming.—11/2 s.h.

44. Tennis.—11/2 s.h.

46. Track.—11/2 s.h.

48. Wrestling.-11/2 s.h.

50. Lacrosse.-11/2 s.h.

VARSITY

70. Lacrosse.—11/2 s.h.

80. Baseball.-11/2 s.h.

82. Basketball.-11/2 s.h.

83. Basketball.—11/2 s.h.

87. Football.—11/2 s.h.

88. Football.—11/2 s.h.

90. Golf.—1½ s.h.

91. Cross Country.-11/2 s.h.

92. Tennis.-11/2 s.h.

93. Soccer Football.—11/2 s.h.

94. Swimming.—1½ s.h.

95. Track.—11/2 s.h.

96. Track.—11/2 s.h.

98. Wrestling.-11/2 s.h.

ELECTIVES IN PHYSICAL EDUCATION

Students in Group VI A may elect twelve semester-hours from the courses offered below. Three semester-hours may be elected from the courses listed under Special Methods in Physical Education and nine semester-hours may be elected from the courses listed under Theory and Practice in Physical Education.

These courses are arranged to meet the increasing demand for teachers who are qualified to coach and teach physical education. These courses should be selected with the advice of the Director of Undergraduate Studies in order to meet the needs of the individual.

SPECIAL METHODS IN PHYSICAL EDUCATION

163. Athletic Coaching in Secondary Schools.—Theory and practice in the fundamentals of coaching baseball and track. Prerequisites: courses 30 or 80 and 21-22 or 46 or 96 or their equivalent. Open to Sophomores, Juniors, and Seniors. 3 s.h. Mr. Combs, Mr. Chambers

164. Athletic Coaching in Secondary Schools.—Theory and practice in the fundamentals of coaching football and basketball. Prerequisites: courses 37 or 87 and 1-2 or 32 or 82 or their equivalent. Open to Sophomores, Juniors, and Seniors. 3 s.h. Mr. Wade, Mr. Stanley, Mr. Cameron

THEORY AND PRACTICE IN PHYSICAL EDUCATION

65. History and Principles of Physical Education.—A study of the objectives and principles upon which physical education is based. The history of physical education is studied in order to show the changes in objectives, principles, and methods and as an aid in the interpretation of trends. Open to Sophomores, Juniors, and Seniors. 3 s.h. Mr. Aycock, Mr. Gerard

172. Recreational Leadership.—Combative contests, games, mass athletics, supervision of community recreation. Open to Sophomores, Juniors, and Seniors. 3 s.h.

Mr. Gerard

173. Individual Gymnastics.—The diagnosis of abnormal cases, including overweight, underweight, post-operative, postural, and flat-foot cases, with the prescription of exercise for their correction. Open to Sophomores, Juniors, and Seniors. 3 s.h.

Mr. Aycock

- 182. The Administration of Health and Physical Education in Secondary Schools.—Presents the everyday problems that arise in the experience of the teacher of health and physical education. Open to Juniors and Seniors. 3 s.h.

 Mr. Aycock, Mr. Gerard
- 187. School Programs of Physical Education.—Open to Juniors and Seniors. 3 s.h. Mr. Gerard
- 190. Protective Practices in Physical Education.—A study of safety measures including training and first aid. Open to Juniors and Seniors. 3 s.h.

 MR. CHAMBERS

WOMAN'S COLLEGE

ASSISTANT PROFESSOR GROUT, CHAIRMAN; MRS. BOOKHOUT, MISS DOWLING, MISS LEWIS, MRS. ROGERS, AND MISS SMITH

Six hours credit in physical education, with an average grade of "C," must be completed for graduation. For women students two hours a week through the Junior year are needed to fulfill this requirement.

All students are given a physical and medical examination upon entering and at intervals throughout their college course. Classes in individual gymnastics and light sports are arranged for those who should not take the more active work.

For information concerning gymnasium costumes and fees refer to pages 154 and 157.

ACTIVITIES OFFERED

October to December: Badminton, bowling, diving, golf, hockey, recreational sports, riding, soccer, swimming, tennis, volleyball.

December to March: Basketball, body mechanics, bowling, clog and tap dancing, folk dancing, social dancing, modern dance, rhythm fundamentals, fencing, individual gymnastics, life saving, riding, swimming.

March to June: Archery, badminton, bowling, diving, fencing, golf, life saving, modern dance, riding, softball, swimming, tennis.

ELECTIVES IN PHYSICAL EDUCATION

In view of the fact that there is an increasing demand for teachers of general subjects who are qualified to assist in physical education in the public schools, the following courses are offered as electives for prospective teachers and as introductory courses for students planning to continue the study of physical education as a profession. Students other than those in Group VI do not receive academic credit for these courses.

- 81. History and Principles of Physical Education.—Prerequisite: Educational Psychology. An historical survey of physical education stressing the relation between the types of activity developed and the social and political ideals of different nations and periods. An interpretation of aims and objectives; a study of the relative values of the activities in a program of physical education. 3 s.h. (E)

 Assistant Professor Grout
- 102. The Teaching of Physical Education in Elementary Schools.—Required of women students in Group VI B. A course intended to familiarize prospective elementary school teachers with methods and materials used in teaching physical education to children; includes discussions on the theory of physical education, and practice in teaching elementary school activities. Courses 102 and 185 are mutually exclusive. Open to Sophomores, Juniors, and Seniors. 3 s.h. (E)

 Assistant Professor Grout
- 108. Problems in Community Recreation.—A study of the historical development of organized recreation; recent trends and theories in recreation; qualifications and preparation for leadership; recreational interests of adolescents and adults; the administration of playgrounds and community centers,

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including the study of local and state recreation departments; materials and methods for directing recreational activities. Valuable for students interested in community and camp work. Open to Juniors and Seniors with permission of the instructor. 3 s.h. (E)

MISS DOWLING

- 181-182. Methods of Teaching Athletic Activities.—A course in the theory and practice of teaching and officiating in team games and athletic sports for girls and women. Open to Juniors and Seniors. 6 s.h. (E)

 The Staff
- 185. The Teaching of Physical Education in Secondary Schools.—This course is intended to give prospective high-school teachers an acquaintance with problems connected with physical education in secondary schools in order that they may be better fitted to help with high-school athletics in communities where no physical education teacher is provided. Discussions and practice teaching. Courses 185 and 102 are mutually exclusive. Open to Sophomores, Juniors, and Seniors. 3 s.h. (E)

 Assistant Professor Grout

HYGIENE

- 41. Personal Health Problems.—A study of health problems from the point of view of the student in college and as a member of society. The course includes essential facts of anatomy and physiology. Either semester. 3 s.h. (E)

 MRS. ROGERS
- S112. School Health Problems.—An introduction to school health problems from the point of view of the classroom teacher. This course includes physical inspection of school children, communicable disease control, teacher health, school plant, safety, and healthful classroom procedures. Required of all students in Group VI B and open to Juniors and Seniors in Group VI A. 3 s.h. (E)

 Mrs. Rogers

HISTORY

PROFESSOR LAPRADE, CHAIRMAN; ASSOCIATE PROFESSOR NELSON, DIRECTOR OF UNDERGRADUATE STUDIES; DR. HAMILTON, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS BALDWIN, CARROLL, AND SYDNOR; ASSOCIATE PROFESSORS CLYDE AND LANNING; ASSISTANT PROFESSORS MCCLOY, MANCHESTER, QUYNN, ROBERT, STILL, AND WOODY; DRS. FERGUSON, PARKER, ROPP, AND WATSON; MISS CHAFFIN (PART-TIME)

The undergraduate courses in history are designed to afford (1) an introduction to the study of history by a survey of the history of modern Europe; (2) a more intensive study of general American history; (3) opportunities for more advanced study of phases of American, English, European, Hispanic-American, and Eastern history which interest the teachers and students.

Course 1-2 or 51-52 is a prerequisite for all other courses; courses 91 and 92 are prerequisite for courses 114, 119-120, 121-122, 153-154, 209-210, 215-216, 263-264, 265-266. Sophomores who took only one semester of course 1-2 in the Freshman year may be admitted to courses 91 and 92, 61-62, or 65-66, provided they made a grade of "B" or above on the semester taken. Courses offered for Seniors and Graduates are limited to twenty-five students; Juniors may not elect them without special permission from the Department and the Council on Graduate Instruction. Sophomores must obtain permission of the instructor in order to be admitted to courses numbered above 100; students who are not fully qualified Sophomores will not be admitted to these courses.

1-2. Modern and Contemporaneous Europe.—In this course the development of modern Europe since the middle of the sixteenth century is traced with special reference to the rise of nationality, the Industrial Revolution, scientific thought, domestic politics in the leading states, colonial expansion, diplomacy, and the World War. 6 s.h. (w & E)

Sophomores and Juniors may not be admitted to this course. Courses 1 and 2 are each offered in both semesters. Either semester may be counted separately as an elective but not as fulfilling the minimum uniform requirements or as a basis of further work in history.

PROFESSOR CARROLL; ASSOCIATE PROFESSORS CLYDE AND NELSON; Assistant Professors Manchester and Quynn; Drs. FERGUSON, HAMILTON, ROPP, AND WATSON;
MISS CHAFFIN

51-52. Modern and Contemporaneous Europe.—The history of Europe since the beginning of the sixteenth century with special reference to the rise of nationality, the Industrial Revolution, colonial expansion, and international relations. 6 s.h. (W & E)

Courses 51 and 52 are each offered in both semesters.

PROFESSOR BALDWIN, ASSISTANT PROFESSOR McCLOY, AND DR. PARKER [Not open to Freshmen or to students who have had course 1-2.]

- 61-62. Russia and the Near East from Peter the Great to Stalin.-The rise of Russia and its effect on international relations; the break-up of the Ottoman Empire and the formation of the Balkan states; the abolition of serfdom and the Industrial Revolution in Russia; the Russian Revolution; international, agrarian, and industrial policies of the Soviet Union; the Danube basin and the revival of German imperialism in the Near East; Arabian nationalism and the conflict of England and Italy in the Mediterranean area. Prerequisite: course 1-2 or 51-52. 6 s.h. (w) Dr. Ropp
- 65-66. The Social and Cultural History of Western Europe in the Seventeenth and Eighteenth Centuries.—6 s.h. (w) ASSISTANT PROFESSOR McCLOY

91. Political and Social History of the United States to 1850.-A general

study of the development of the United States, prefaced by a brief review of the Colonial era, covering the period from the Revolution through the Compromise of 1850. 3 s.h. (w & E) Assistant Professors Robert and Still; Dr. Watson

92. Political and Social History of the United States since 1850.—A continuation of course 91, concluding with an introduction to problems that have arisen in the United States since the World War. 3 s.h. (w & E)

ASSISTANT PROFESSORS ROBERT AND STILL; DR. WATSON

Note: In courses 91 and 92 no texts are required, but each student pays a class fee of \$3.00 per semester with which all books to be read are purchased and placed in the libraries. This fee is collected through the Treasurer's Office.

101-102. Early European Civilization.—A study of the development in Western Europe of the institutions and culture of ancient times and the middle Assistant Professors Manchester and Quynn ages. 6 s.h. (w)

Sophomores who made an average grade of "B" or more on course 1-2 may be admitted to this course.

105-106. English Constitutional History.—A history of England with emphasis on constitutional aspects. This course is required of students in the Pre-Legal Group in the Junior or Senior year. 6 s.h. (w) Dr. Hamilton Students who have had course 123-124 may not receive credit for this course.

107-108. Social and Cultural History of England .- A study of English history from the fourteenth century to the present time in an effort to arrive at a synthesis of social and political events and thus provide a background for the study of English literature. Emphasis is placed on the ages of Chaucer, Shakespeare, and Milton; the eighteenth and early nineteenth centuries; the reign of Victoria and the twentieth century. 6 s.h. (E) DR. FERGUSON

Sophomores who made an average grade of "B" or above on course 1-2 may be admitted to this course.

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109-110. Political and Cultural Foundations of Modern Europe, 1400-1648.—Attention is given to the decline of feudal society and the age of faith; the rise of diplomacy and the states-system; humanism and the republic of letters; science and art in the times of Lorenzo de' Medici, Erasmus, Montaigne, Francis Bacon; religious conflict and the idea of tolerance. 6 s.h. (w)

ASSOCIATE PROFESSOR NELSON

114. History of the United States since Reconstruction.—Reconstruction and its aftermath; cultural, political, and economic development since 1876, agrarian and labor problems, the rise of large industry, the Spanish War and imperialism, the World War, and post-bellum problems. Prerequisites: courses 91 and 92. 3 s.h. (w)

Associate Professor Lanning

[Not offered in 1941-42]

- 119-120. Social and Cultural History of the United States.—A study of American life and manners with emphasis on religious, educational, and reform movements, on trends of literary and artistic expression, and on the social effects of a changing economy. Prerequisites: courses 91 and 92. 6 s.h. (w)

 ASSISTANT PROFESSOR ROBERT
- 121-122. The Church in American History.—Among the subjects considered are the relation of theology and church government to political theory and practice, the social and political results of the Great Awakening and of ecclesiastical controversies, the part played by the Church in the American Revolution and in the making of state constitutions, in education, westward expansion, in the reform movements of the nineteenth century, labor controversies, the Civil and World Wars, and internationalism. Prerequisites: courses 91 and 92. 6 s.h. (E)

 [Not offered in 1941-42]

123-124. English History.—A study of transitions in the political institutions and social development from the Norman Conquest to the present. 6 s.h.

(w) PROFESSOR LAPRADE

Students who have had course 105-106 may not receive credit for this course.

125. The Ancient Regime, the French Revolution, and Napoleon.—A study of the intellectual defenses of the Ancient Regime, the crumbling of these defenses during the eighteenth century, the Revolution and recent interpretations of that event, the rise and decline and fall of Napoleon. Readings will be assigned from the works of Locke, Voltaire, Montesquieu, and Rousseau; special attention is given to the fall of Napoleon. 3 s.h. (w)

Dr. Parker

- 126. The Congress of Vienna and the Rise of the European Nations to 1870.—A study of European history from the Congress of Vienna through the Franco-Prussian War emphasizing the growth of nationalism and the struggle of liberalism against conservatism, including attention to the Industrial Revolution, socialism, and Darwinism. Readings will be assigned from Mill, Mazzini, Marx, and Darwin; special attention is given to the diplomacy of Cavour and Bismarck. 3 s.h. (w)
 - 127. History of Latin America.—3 s.h. (w)

Associate Professor Lanning

Ancient History.—Greek 131—Latin 131-132.—See Departments of Greek, Latin and Roman Studies. These courses do not count toward a major in history. (w)

135. Main Currents in European History, 1815-1914.—3 s.h. (w)
Professor Carroll

136. Europe since 1914, Including the Rise of the Totalitarian States, Russia, Italy, and Germany.—3 s.h. (w)

Professor Carroll

141-142. The Modern and Contemporary Far East.—An introductory study of the colonial and imperialistic expansion of the Western world in the Far East during the nineteenth and twentieth centuries. 6 s.h. (w)

ASSOCIATE PROFESSOR CLYDE

153-154. The History of the South.—A study, beginning in the Colonial period, of the development of the Southern part of the United States with particular attention to its distinctive characteristics and institutions and to their influence in shaping Southern attitudes toward major questions of national policy. 6 s.h. (w) Professor Sydnor

FOR SENIORS AND GRADUATES

- 209-210. American Constitutional History.—A study of the Colonial foundations of American constitutional attitudes, the constitutional aspects of the American Revolution, the framing and ratification of the Constitution, the statehood process and the extension of democracy, the constitutional implica-tions of sectional conflict, and the Supreme Court in its relation to the problems of an industrial America. Prerequisites: courses 91 and 92. 6 s.h. (w) [Not offered in 1941-42] Assistant Professor Still
- 211. The Teaching of History and the Social Studies (Education 225).— Assistant Professor Manchester 3 s.h. (w)
- 215-216. History of the United States' Foreign Policy.—This course traces the history of American diplomacy since 1789. Prerequisites: courses 91 and 92. 6 s.h. (w) Associate Professor Clyde
- 217-218. Europe since 1870.—International relations since the Franco-German War is the chief subject of study in this course; special emphasis is placed upon the underlying economic and political influences. 6 s.h. (w) PROFESSOR CARROLL
- 219-220. The History of the European Proletariat.—This course is concerned chiefly with the origins, expansion, and organization of the industrial working classes of Europe. The following problems are emphasized: the decline of serfdom, the growth of an urban working class and social revolutions in England, France, and Germany prior to the eighteenth century, the results of the Industrial Revolution, and labor movements and theories during the nineteenth and twentieth centuries. 6 s.h. (w) Professor Carroll [Not offered in 1941-42]
- 223-224. Medieval Institutions and Culture.—A consideration of the classical heritage, the Germanic infusion, development of ecclesiastical, feudal, monarchical, and communal institutions, relations of Church and State, the rise of universities, vernacular literatures, philosophy, and art in the period 300-1300 A.D. 6 s.h. (w) Assistant Professor Quynn

[Not offered in 1941-42]

- 221-222. The Age of the Renaissance.—A survey of social and cultural changes in Western Europe from Dante to Erasmus. 6 s.h. (w) ASSOCIATE PROFESSOR NELSON [Not offered in 1941-42]
- 225-226. The Age of the Reformation.—A survey of European civilization from 1500 through the Peace of Westphalia. 6 s.h. (w) Associate Professor Nelson [Not offered in 1941-42]
- 230. The Portuguese Empire and the Rise of Brazil.—The course will deal with Portuguese explorations, the establishment of the Portuguese Empire in the East, the transplanting of Portuguese culture overseas, and the rise of a native Brazilian civilization. 3 s.h. (w)

Assistant Professor Manchester

HISTORY 101

231. The Hispanic Colonies of the New World.—The development of the Iberian states as colonizing powers, the work of the conquerors, the Spanish colonial policy and system, their influences and results, native races, the international contest for supremacy, and the decay of Spanish power in America and the Philippines. 3 s.h. (w)

Associate Professor Lanning

[Not offered in 1941-42]

232. Hispanic Republics of the New World.—3 s.h. (w) [Not offered in 1941-42] Associate Professor Lanning

History of Colonial Hispanic 233. The Cultural and Institutional America.-3 s.h. (w) Associate Professor Lanning

234. Political and Social Problems in the Hispanic American Republics .-Associate Professor Lanning 3 s.h. (w)

[Not offered in 1941-42]

241-242. Eastern Asia and the Pacific.—A study of the westernization of China and Japan in the twentieth century with particular attention to the conflict between Western and Eastern political institutions, the rise of industry in Japan, the political and social revolution in China, military socialism in Manchukuo, the development of the Russian Far East, the conflict between Chinese nationalism and Japanese imperialism, and the status of Western colonies, including the intervention of the United States in the Philippines. 6 s.h. (w)

ASSOCIATE PROFESSOR CLYDE [Not offered in 1941-42]

263-264. American Colonial History and the Revolution, 1606-1783 .-The growth of institutions and economic life in the English colonies and the American Revolution. Prerequisites: courses 91 and 92. 6 s.h. (w)

Assistant Professor Woody

265-266. The Westward Movement in the United States.—A study of the progress of settlement from the Atlantic to the Pacific Coast with especial attention to the transmission of culture, developments in transportation, the transition from agrarian to urban communities, the process of state-making, and the social, economic, and political effects of the westward march upon the United States as a whole. Prerequisites: courses 91 and 92. 6 s.h. (w)

Assistant Professor Still

DEPARTMENTAL MAJOR

Prerequisites: The Introductory Course in History (1-2 or 51-52).

Major Requirements: Students in the General Group desiring to take a major in history are required to elect twenty-four semester-hours in the Department, including six semester-hours in the Senior year from courses in the 200 group. Students desiring to take the more advanced courses in American history should elect courses 91 and 92 in the Sophomore or Junior year.

DEPARTMENTAL HONORS PROGRAM

Students may become candidates for Honors in history who have passed with a grade of "B" or better in their Freshman and Sophomore years courses 91 and 92 in addition to the introductory course in European history.

Candidates for Honors in history are required to take in the Junior year two courses in history offered in the 100 group and to make an average grade of "B" or better on this work. The remaining work in the Junior year will be chosen from related work and other electives with the consent of the Departmental Committee on Honors. In the Senior year, in addition to the equivalent of fifteen semester-hours of supervised reading in history, the candidate must elect with the approval of the Departmental Committee on Honors six semester-hours of work from the courses in history offered in the 200 group, on which he is required to make a grade of "B" or better, and nine semester-hours of related or other elective work. semester-hours of related or other elective work.

Of the supervised reading, which shall be done under the immediate supervision of members of the Departmental Committee on Honors, the equivalent of six semester-hours shall be devoted to the classical historians such as Herodotus, Thucydides, Tacitus, Livy, Bede, the better-known chronicles, Machiavelli, Gibbon, Hume, Voltaire, Ranke, and others; the equivalent of nine semester-hours shall be devoted to selected fields in either American or European history as the student may elect and the Departmental Committee advise.

At the conclusion of the work the student shall be given an oral examination by a committee of three, consisting of the two members of the Departmental Committee on Honors in charge of his supervised reading and another member of the Department selected by the Departmental Committee.

LATIN AND ROMAN STUDIES

PROFESSOR ROGERS, CHAIRMAN AND DIRECTOR OF UNDERGRADUATE STUDIES; DR. ROSE, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSOR ROSBOROUGH; ASSISTANT PROFESSOR GATES

Work is offered in several branches of Roman Studies: Latin Language and Literature, Roman Art and Archaeology, Roman History, Roman Law. Students who present two entrance units in Latin should take course 3-4; those who present three entrance units should take courses 57 and 65 and follow up with courses 4 and 58 or 66, or both, the second semester; those who enter with four units of Latin should pursue course 41-42. A course for beginners, Latin 1-2 is open to all college students.

- 1-2. Course for Beginners.—Forms, vocabulary, pronunciation and syntax are emphasized the first semester, and will be followed by the reading and translating of Caesar's *Gallic War* the second semester. An effort is made to promote rapid development of ability to read easy Latin with satisfaction. 6 s.h. (w or E)

 Dr. Rose
- 3. Cicero's Orations.—Four orations including the Manilian Law and Archias are read, and attention is paid to prose style. Prerequisite: two entrance units of Latin. 3 s.h. (w) Assistant Professor Gates or Dr. Rose
- 4. Vergil's Aeneid.—Selections from Books I-VI, to the amount of four books or more, will be read and translated, due attention being paid to prosody. Prerequisite: three entrance units and Latin 57 taken in the semester preceding admission to the course, unless Latin 3 was taken. 3 s.h. (w)

 ASSISTANT PROFESSOR GATES OR DR. ROSE
- 41. Livy's History of Rome.—Selections from Books I, XXI, and XXII of Livy's Ab Urbe Condita Libri, together with selected parallel reading in English, will acquaint the student with a truly great literary artist. At the discretion of the instructor the following may be substituted for Livy: Cicero's De Amicitia and De Senectute, or Selected Prose Writers, or Comedies of Plautus and Terence. 3 s.h. (W & E)
 - 42. Horace.—The Odes and Epodes. 3 s.h. (w & E)

 The Staff
- 53. Sallust and Tacitus.—The *Jugurtha* of Sallust, the *Agricola* of Tacitus. Prerequisite: Latin 41-42 or an equivalent. 3 s.h. (W or E)

 Dr. Rose
- 54. Catullus.—Most of the poems will be read, and Catullus' influence on certain ancient and modern poets will be discussed. 3 s.h. (w or E)

 Dr. Rose
- 57. Sight Reading in Classical Latin.—One period of an hour per week devoted to practice in the reading of Latin of the classical period: designed to train students to read with facility. (See course 4.) No outside preparation is required. 1 s.h. (w or E)

- 58. Sight Reading in Mediaeval Latin.—One period an hour per week devoted to reading interesting Mediaeval prose and poetry. Prerequisite: at least one of the following courses: Latin 3, 4, 41, 42, and 57, or an equivalent. No outside preparation is required. 1 s.h. (w or E)

 DR. ROSE
- 65-66. Latin Prose Composition.—Recommended to students who are pursuing courses 3-4, 57, and 41-42, and may at the discretion of the instructor be required of such students. 2 s.h. (E)

 DR. Rose
- 101. Tacitus and Suetonius.—Interesting and historically important selections from the *Annals* of Tacitus with limited parallel readings of Suetonius' *Lives of the Twelve Caesars* are read, and due consideration of the Roman conception of history and the historian's task is given. 3 s.h.

PROFESSOR ROSBOROUGH

- 102. Juvenal and Persius.—Juvenal's literary satire will form the basis of the course, and several satires of Persius will be read for comparison. 3 s.h.

 PROFESSOR ROSBOROUGH
 - 103. The Roman Elegiac Poets. [Not offered in 1941-42]
 - 104. Horace: Satires and Epistles. [Not offered in 1941-42]
 - 105. Martial's Epigrams. [Not offered in 1941-42]
 - 106. Letters of Pliny the Younger. [Not offered in 1941-42]
 - 107. Livy: Ab Urbe Condita. [Not offered in 1941-42]
- 108. Cicero's Letters.—A considerable amount of the interesting and historically important correspondence of Cicero will be read and interpreted.

 3 s.h. (E)

 Assistant Professor Gates
- 109. Materials and Methods.—A study of Latin in the secondary school curriculum for prospective teachers of Latin in the high schools. Prerequisite: eighteen approved semester-hours of college Latin, including courses 41-42, 53-54, or equivalent courses. Required of students who plan to teach Latin in state high schools. 3 s.h.

 Assistant Professor Gates
 - 111-112. Roman Literature in English Translation. [Not offered in 1941-42]
 - 113-114. Roman Civilization. [Not offered in 1941-42]
 - 115-116. Art and Architecture of Ancient Rome. [Not offered in 1941-42]
- 131-132. History of Rome.—A survey of the history of Rome from its beginnings through the Monarchy, Republic and Principate to the death of Justinian; Rome's expansion; development of the Roman constitution and public administration; a study of important features of social, legal, political, and economic problems of perennial life and interest. (This course carries no language credit. No knowledge of Latin is required for admission.) 6 s.h. (w)

 PROFESSOR ROGERS
- 203-204. Roman Epic: Ennius, Vergil, Manilius, Lucan, Flaccus, Statius, Silius.—A study of this literary genre, and its development by Roman writers; extensive reading of the Roman epics. Not offered if 205-206 is given.

 6 s.h. (E)

 Assistant Professor Gates

205-206. Roman Drama.—Select Comedies of Plautus and Terence; select Tragedies of Seneca. Rapid reading course. 6 s.h. (E)

ASSISTANT PROFESSOR GATES

207-208. Roman Philosophy.—Extensive reading in the philosophical writings of Cicero, Lucretius and Seneca. 6 s.h. (E or w)

PROFESSOR ROSBOROUGH

209-210. Vulgar Latin: Introduction to Romance Philology. [Not offered in 1941-42]

211-212. Roman Oratory.
[Not offered in 1941-42]

[Not offered in 1941-42]

215. Roman Art and Archaeology.

216. Topography and Monuments of Ancient Rome.—A study of the site of Rome, its development and expansion; city plan; public buildings, dwellings, theatres, fora, shops, sewers, aqueducts, etc.; materials and methods of construction. 3 s.h. (w)

PROFESSOR ROSBOROUGH

For other courses numbered in the 200 group, see the Bulletin of the Graduate School.

DEPARTMENTAL MAJOR

Prerequisites: Latin 41-42, 65-66, or acceptable equivalents.

Major Requirements: Latin 53-54, 101-102, six semester-hours in courses numbered from 103 to 108, and six semester-hours in courses numbered from 200 to 299 to be taken in the Senior year.

In addition, all majors are expected to pursue course 131-132, History of Rome.

Majors who contemplate graduate work are reminded of the necessity of Greek, German and French for such study.

LAW COURSES FOR ACADEMIC STUDENTS

PROFESSORS BOLICH, BRADWAY, HORACK, LATTY, LOWNDES, MAGGS, POTEAT, SHEPHERD; ASSOCIATE PROFESSOR SANDERS; MR. ROALFE

The first-year program of the Law School is as follows:

Subject		rs per iester	Instructor ·			
Contracts	3	3	SHEPHERD			
Legal Research and Writing	2	2	ROALFE, BRADWAY (WITH			
			LEGAL AID CLINIC STAFF) AND FIRST-YEAR FACULTY			
Property	2	2	LATTY, BOLICH			
Torts		3	MAGGS			
Criminal Law and Its Administration.	3		SANDERS			
Introduction to Procedure	3		POTEAT			
Introduction to Equity		2	Horack			
Negotiable Instruments and Banking.		3	Lowndes			
	15	15				
	13	15				

MATHEMATICS

PROFESSOR GERGEN, CHAIRMAN; PROFESSOR ELLIOTT, DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANT PROFESSOR HICKSON, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS RANKIN AND THOMAS; ASSOCIATE PROFESSORS CARLITZ AND ROBERTS; ASSISTANT PROFESSOR PATTERSON; DRS. BOAS AND DRESSEL; MISS LAYNE (PART-TIME)

AND MR. WADE (PART-TIME); AND ASSISTANTS

A student in the Business Administration Group must complete Mathematics 3-4 or the equivalent. A student in the Pre-Forestry Group must complete Mathematics 7 and 8 or the equivalent. A student in the Pre-Medical Group or the General Group leading to the Bachelor of Science degree must complete Mathematics 7 and 8 or Mathematics 7 and 50 or the equivalent. Mathematics 50 is recommended for students who plan to take Mathematics 51-52. Mathematics 8 is recommended for those who plan not to take Mathematics 51-52. Placement tests in algebra are administered to all entering students planning to take courses in mathematics. Students in the Business Administration Group found deficient in algebra must take Mathematics 1 before taking Mathematics 3-4. Students in the Pre-Medical and Pre-Forestry Groups and the General Group leading to the Bachelor of Science degree found deficient in algebra must substitute Mathematics 1 and 2 for Mathematics 1 in algebra

Credit is allowed for half of a double course.

1. Introduction to College Algebra.—3 s.h. (w & E)

Staff

- 2. Plane Trigonometry.—The normal course for students in the General, Pre-Medical, and Pre-Forestry Groups who have completed Mathematics 1. 3 s.h. (w & E)

 Staff
- 3-4. Mathematical Analysis for Students of Business.—First half: review topics in algebra, functions and graphs, exponents, radicals, quadratic functions, the binomial theorem, logarithms, progressions, interest and annuities, permutations, combinations, probability. Second half: trigonometric functions, solution of right triangles, curve and equation, linear equation, differentiation of algebraic functions, integration of polynomials, applications with emphasis on problems in business. The normal first course for students in the Business Administration Group. 6 s.h. (w): Mathematics 3 each semester; Mathematics 4 each semester. (E): Mathematics 3 first semester; Mathematics 4 second semester.
- 7. Algebra and Trigonometry.—Review topics in algebra, functions and graphs, exponents, radicals, complex numbers, quadratic functions, mathematical induction, the binomial theorem, theory of equations, logarithms, trigonometric functions and addition formulas, solution of right and oblique triangles. The normal first course for students in the General, Pre-Medical, and Pre-Forestry Groups. 3 s.h. (w): each semester. (E): first semester.
- 8. Introduction to Analytic Geometry and Calculus.—Curve and equation, linear and second degree equations and their loci, differentiation of algebraic functions with applications, integration of polynomials with applications. The normal course for students who have completed Mathematics 1 and 2 or Mathematics 7 and who wish only a brief introduction to analytic geometry and calculus. Students who prefer the more detailed study of these subjects offered in Mathematics 50 and 51-52 should take Mathematics 50 rather than this course. 3 s.h. (w): each semester. (E): second semester.
- 9-10. First-Year Engineering Mathematics.—College algebra, plane trigonometry, plane analytic geometry, introduction to solid analytic geometry. Designed primarily for students in the Engineering Groups. 10 s.h. (E) STAFF

50. Analytic Geometry.—Rectangular and polar co-ordinates; curve tracing; locus problems; straight line; the parabola, ellipse and hyperbola; introduction to solid analytic geometry. Prerequisite: Mathematics 7 or the equivalent. 3 s.h. (w): each semester. (E): second semester.

(w): Associate Professor Carlitz (first semester) and

Professor Gergen (second semester);
(E): Professor Elliott (second semester)

51-52. Differential and Integral Calculus.—First half (Differential Calculus): differentiation of elementary functions; curve tracing; maximum and minimum problems; differentials; curvature; motion problems; infinite series. Second half (Integral Calculus): indefinite integrals; the integral as a limit of a sum; applications to areas, volumes, centroids, etc.; partial differentiation; multiple integrals. Prerequisite: Mathematics 50 or permission from the instructor. 6 s.h. (w): Mathematics 51 each semester; Mathematics 52 each semester.

PROFESSOR ELLIOTT (51 first semester, 52 second semester); ASSOCIATE PROFESSOR CARLITZ (51 second semester); ASSISTANT PROFESSOR HICKSON (52 first semester)

- 59-60. Second-Year Engineering Mathematics.—A correlated development of differential and integral calculus. Designed primarily for students in the Engineering Groups. Prerequisite: Mathematics 9-10 or the equivalent. 8 s.h.

 (E) PROFESSOR RANKIN; ASSISTANT PROFESSOR PATTERSON;
- 64. Mathematics of Artillery Fire.—A mathematical discussion of orientation and gunnery for artillery. Methods for locating gun and target, the trajectory in vacuo and in air, range table corrections, and fire control. Prerequisite: Mathematics 7 or the equivalent. 3 s.h. (w) Professor Thomas
- 71. Mathematics of Investment.—Simple and compound interest, annuities certain, amortization, sinking funds, depreciation, evaluation of bonds, life insurance. Designed primarily for students in the Business Administration Group. Prerequisite: 6 semester-hours of college mathematics. 3 s.h. (w)

 Assistant Professor Hickson
- 74. Statistics.—Averages; measures of dispersion, skewness and correlation; probable error; curve fitting; graduation of data to type curves; index numbers. Applications to problems in business and other fields. Prerequisite: 6 semester-hours of college mathematics. Offered in alternate years. 3 s.h. (w)

 Assistant Professor Hickson

[Not offered in 1941-42]

- 76. Mathematical Theory of Economics.—A study from a mathematical point of view of cost and demand functions, monopoly, competition, co-operation, exchange, utility, and production; supplementary review and development of the essential mathematical ideas. Offered in alternate years. Prerequisite: Mathematics 4 or Mathematics 8 or the equivalent. 3 s.h. (w)

 Assistant Professor Hickson
- 131. Elementary Differential Equations.—Solution of elementary types; formation and integration of equations arising in applications. Prerequisite: integral calculus. 3 s.h. (E)

 Assistant Professor Hickson
- 139-140. Second Course in Calculus.—Multiple integrals, partial differentiation, Taylor's theorem, envelopes, line integrals, Green's theorem, improper integrals, complex numbers. Prerequisite: integral calculus. 6 s.h. (w)

 Professor Elliott
- 160. Elementary Solid Analytic Geometry.—Determinants, planes, straight lines, quadric surfaces. Prerequisite: integral calculus. 3 s.h. (w)
 [Not offered in 1941-42]

- 161-162. Reading Course for Juniors.—Open only to Juniors reading for Honors in Mathematics. Material, credit, and hours arranged in consultation with tutor. See Departmental Honors Program.
- 163-164. Reading Course for Seniors.—Open only to Seniors reading for Honors in Mathematics. Material, credit, and hours arranged in consultation with tutor. See Departmental Honors Program.

FOR SENIORS AND GRADUATES

- 201. History of Mathematics.—Evolution of the number system, arithmetic, geometry, algebra, trigonometry, analytic geometry, calculus, and modern geometry. Brief sketches of mathematicians. Offered in alternate years. Prerequisite: differential calculus. 3 s.h. (w)

 PROFESSOR RANKIN
- 204. Teaching of Mathematics.—Fundamental processes, methods of study, mathematical literature, content of courses, applications, use of instruments, correlation of different branches. Offered in alternate years. Must be preceded or accompanied by integral calculus. 3 s.h. (w)

 Professor Rankin
- 225. Theory of Equations.—Permutations, determinants, matrices, linear systems, polynomials and their roots, constructibility, resultants, discriminants, simultaneous equations. Second semester. Prerequisite: differential calculus. 3 s.h. (w)

 PROFESSOR THOMAS
- 227-228. Theory of Numbers.—Congruences, arithmetic functions, compound moduli, quadratic reciprocity, Gauss sums, quadratic forms, sums of squares. Prerequisite: integral calculus. 6 s.h. (w)

[Not offered in 1941-42] Associate Professor Carlitz

229-230. Algebraic Numbers.—Ideals, unique factorization, divisors of the discriminant, determination of the class number. Prerequisite: Mathematics 225. 6 s.h. (w)

Associate Professor Carlitz

[Not offered in 1941-42]

- 235-236. Modern Algebra.—Groups, fields, rings, matrices, quadratic and bilinear forms, general Galois theory, hypercomplex systems. Prerequisite: differential calculus. 6 s.h. (w)
 [Not offered in 1941-42]
- 255-256. Projective Geometry.—Postulational, synthetic treatment centering around Desargues' theorem and the principle of projectivity. Conics, coordinates, order, continuity, metric properties. Prerequisite: differential calculus. 6 s.h. (w)

[Not offered in 1941-42]

- 271-272. Introductory Topology.—Topological properties of Euclidean spaces; set-theoretic and combinatorial methods. Prerequisite: integral calculus. 6 s.h. (w)

 Associate Professor Roberts
- 275. Probability.—Combinatory analysis, mean values, Bernoulli's theorem, probability integral. Applications to statistics. Prerequisite: integral calculus. 3 s.h. (w)

[Not offered in 1941-42]

- 281. Elementary Potential Theory.—Newtonian potentials, vector fields, Dirichlet and Neumann problems. Prerequisite: integral calculus. 3 s.h. (w) [Not offered in 1941-42]
- 282. Differential Equations of Mathematical Physics.—Hamilton-Jacobi equation, heat equation, wave equation, telegraphic equation, Schrödinger's equation. Prerequisite: integral calculus. 3 s.h. (w)

 [Not offered in 1941-42]

- 283. Fourier Series and Spherical Harmonics.—Fourier series and integrals, Legendre polynomials, spherical harmonics, Bessel functions. Applications to mathematical physics. Second semester. Prerequisite: integral calculus. 3 s.h. (w)

 DR. DRESSEL
- 284. Vector Analysis.—Vectors in three-dimensional Euclidean space with applications to physics; introduction to tensor analysis. First semester. Prerequisite: integral calculus. 3 s.h. (w)

 Professor Thomas
- 287. Mathematical Logic.—Boole-Schroeder algebra of logic, system of Principia Mathematica, strict and material implication. 3 s.h. (w) [Not offered in 1941-42]
- 288. Foundations of Mathematics.—Postulates for groups, fields, rings, Boolean algebras. 3 s.h. (w)
 [Not offered in 1941-42]
- 291-292. Theory of Functions.—Fundamental concepts in the theory of functions of real and complex variables. Limits, continuous functions, Riemann integrals, implicit functions, power series, double series, linear transformations, elementary functions, Cauchy's theorem and its applications, entire functions, residues, Riemann surfaces, conformal mapping. Prerequisite: Mathematics 140. 6 s.h. (w)

DEPARTMENTAL MAJOR

Prerequisite: Six semester-hours of Freshman mathematics.

Major Requirements: Mathematics 51-52 or 59-60 and twelve semester-hours in courses numbered above 100. These twelve hours must be approved by the Department through the Director of Undergraduate Studies.

DEPARTMENTAL HONORS PROGRAM

Prerequisites: A student who meets the general requirement as to candidacy of the Honors Group, who has completed Mathematics 51 or 59 and who has earned an average grade of "B" or better in his courses in mathematics, may become a candidate for Honors.

Honors Work:

- (a) Work in Mathematical Courses: To graduate with Honors a candidate must complete, during his Honors program, a minimum of eighteen semester-hours of course work in regular open courses numbered above 100. These courses must be completed with an average grade of "B" or better.
- (b) Tutorial Work: During his Honors program a candidate reads on special topics in mathematics under the personal supervision of a tutor. A candidate must earn a minimum of six semester-hours of credit in his tutorial work. He cannot earn more than nine semester-hours in his tutorial work, nor more than thirty-six semester-hours for his course work in mathematics and his tutorial work combined.
- (c) Work in Courses in Related Fields: A candidate must earn a sufficient number of semester-hours of credit in courses in related fields to complete with the credit obtained in (a) and (b) the sixty semester-hours required in the Honors Group.

A candidate's program must be approved by the Departmental Honors Adviser.

General Honors Examination: At the end of the Senior year each candidate reading for Honors in mathematics must pass a comprehensive examination on his Honors program. This examination may be written, oral, or both. Faculty members from other departments and other institutions may be invited to participate in this examination.

109 Music

MUSIC

DEAN BALDWIN, ACTING CHAIRMAN; MR. BRUINSMA, DIRECTOR OF UNDERGRADUATE STUDIES; MR. BROADHEAD, SUPERVISOR OF FRESHMAN INSTRUCTION; MRS. MUELLER

Duke University does not give credit for Applied Music study at the present time. However, instruction in piano, organ, violin, viola, and voice is provided by members of the Music Department Faculty. Membership in the Chapel Choir, the Glee Clubs, Bands, and Symphony Orchestra is open to those who can qualify.

THEORY

11-12. Fundamentals of Music.—The elements of harmony, rhythm, and form. The visual and aural recognition of scales, intervals, triads, and seventh chords and their functions in relation to the system of tonality. Harmonization of melodies; development of rhythmic discrimination. A general background for advanced courses in the department. Students will meet with the instructor in small groups an additional hour each week. Three sections throughout the year. A fourth section of Music 11 will begin the second semester, followed by Music 12 to be offered the first semester, 1942-43. 6 s.h. (E)

MRS. MUELLER AND MR. BRUINSMA

- 61-62. Counterpoint, Canon, and Fugue.—Strict counterpoint in the "five species" melodious part writing with a restricted harmonic basis. Composition in the polyphonic forms, notably canon and fugue in the second semester. Prerequisite: Music 11-12. 6 s.h. (E)

 MR. BROADHEAD [Not offered in 1941-42]
- 71-72. Analysis of Form.—The evolution of the polyphonic and homophonic forms from the Middle Ages to modern times. The functions of phrases, sentences, periods, in the construction of various harmonic forms. Detailed analysis of representative works. Prerequisite: Music 11-12. 6 s.h. (E) Mr. Bruinsma
- 111-112. Harmony.—The principles of composition from the standpoint of the composer. Proficiency in harmonization of melodies, modulation, ornamentation, and original work in the smaller forms is required. Continuation of aural training. Prerequisite: Music 11-12. 6 s.h. (E)
- 121-122. Orchestration and Conducting.—The history, technical restrictions, and orchestral use of the instruments of the modern orchestra. Scores will be studied and arrangements made by the class. One period a week will be devoted to the technique of the baton, vocal and instrumental score reading. Prerequisite: Music 11-12. 6 s.h. (E) Mr. Bruinsma

HISTORY AND CRITICISM

- 81-82. Introduction to Musical Literature.—An historical survey of the evolution of music from ancient times to the present. An elementary study of the basic principles of form and of musical aesthetics to serve as a basis of criticism. 6 s.h. (E) Mr. Broadhead
- 131. Symphonic Literature.—The historical background and development of music for the orchestra. A critical and analytical study of orchestral suites, overtures, and symphonies. Scores and records will be used. Prerequisite: Music 81-82 or consent of instructor. 3 s.h. Mrs. Mueller
- 132. Symphonic Literature.—A continuation of Music 131 with emphasis upon the Symphonic Poem. Prerequisite: Music 131. 3 s.h. (E) Mrs. Mueller
- 142. Organ Literature.—Historical development of music for the organ from the sixteenth century to the present. Styles, forms, peculiarities of

composition due to the nature of the instrument. A brief introduction on the construction of early and modern organs. Prerequisite: Music 81-82. 3 s.h. (w)

Мк. Вкоарнеар

[Not offered in 1941-42]

- 197. Bach.—A detailed study of Bach, his times, and his music. 3 s.h. (E)

 MR. BROADHEAD
- 198. Beethoven.—A detailed study of Beethoven, his times and his music. 3 s.h. (E) MR. Вкоарнеар

MUSIC EDUCATION

- 101. Vocal Methods.—A study of materials and methods of teaching vocal music in public schools. Treatment of the child voice, rote singing, chord singing, voice testing, balance, organization, and supervision. Observation of work done in the public schools. High-school glee club literature. Prerequisite: Music 11-12. 3 s.h. (E)

 MR. BRUINSMA
- 102. Instrumental Methods.—A study of materials and methods of teaching orchestral instruments, organization, supervision. Observation of work in the public schools. Literature for band and orchestra. Prerequisite: Music 11-12. 3 s.h. (E)

 MR. BRUINSMA

[Not offered in 1941-42]

151-152. Fundamentals of Music for Education Students.—Primarily designed for students who desire to qualify for the State Teaching certificate. The elements of harmony, rhythm, form, and a study of material and methods of music teaching in the first eight grades. Not open to students who have had Music 11-12. 6 s.h. (E)

MR. BRUINSMA

PHILOSOPHY

PROFESSOR WIDGERY, CHAIRMAN; ASSOCIATE PROFESSOR MORGAN, DIRECTOR OF UNDERGRADUATE STUDIES; DR. MC LARTY, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS GLIBERT AND SMITH; ACTING PROFESSOR DUBS; AND ASSISTANT PROFESSOR LEONARD

For courses marked * there is a prerequisite of three hours of philosophy; admission otherwise by permission of the instructor. Sophomores may in general take courses prescribed for Juniors by permission of the instructor.

48. Introduction to Logic and Scientific Method.—The general principles of logical thinking: the nature of the logical processes involved in the attainment of knowledge in mathematics, the sciences, history, and philosophy. The character of systematic exposition. 3 s.h. (w)

Assistant Professor Leonard

- 95. Introduction to Ethics.—An elementary consideration of some of the important moral problems in the light of philosophical tradition and the science of values. Sophomores and approved Freshmen. First semester (w). Second semester (E). 3 s.h. PROFESSOR GILBERT AND ASSOCIATE PROFESSOR MORGAN
 - 96. The Development of American Philosophy.—3 s.h. (w)
 ASSOCIATE PROFESSOR MORGAN
- 101. Introduction to Philosophy.—This course is intended to acquaint the student with the nature of philosophical problems. First semester (w) and (E). Second semester (w). 3 s.h. (w) Professor Widgery (first semester)

 Dr. McLarry (second semester)

(E) PROFESSOR GILBERT

- 103. Logic.—Fundamental principles of valid reasoning. 3 s.h. (w) [In alternate years—not offered in 1941-42] Assistant Professor Leonard
- 104. Scientific Methodology.—A survey of the methods used in various natural and social sciences. 3 s.h. (w) ASSISTANT PROFESSOR LEONARD [In alternate years—not offered in 1941-42]

- A study of the great philosophical thinkers with special reference to the problems of a philosophy of human life. 3 s.h. (w)

 DR. McLarty
- 106. Introduction to the History of Philosophy: Modern.—A study of the great philosophical thinkers with special reference to the problems of a philosophy of human life. 3 s.h. (w)

 PROFESSOR WIDGERY AND DR. McLARTY
 - 108. Philosophical Ideas in Ancient Greek and Roman Culture.—3 s.h. (w) DR, McLarty
- 114. Seventeenth-Century Philosophy, with Special Reference to Spinoza.*

 —3 s.h. (E) Professor Gilbert
- 119. Fundamentals of Christian Morality: An Introduction to Christian Ethics.—3 s.h. (w) Dr. McLarty
- 121. The Philosophy of Plato.—Lectures, readings and reports. Reference will be made to some influences of Platonic modes of thought in English literature. 3 s.h. (w)

 DR. McLarty

FOR SENIORS AND GRADUATES

201-202. The Philosophy of Art.—Study of the various phases of the aesthetic experience and forms of beauty with analysis of examples. Particular attention will be given to recent writers on aesthetics. 6 s.h. (E)

[In alternate years—not offered in 1941-42] Professor Gilbert

- 203. The Philosophy of Conduct.—A critical study of the fundamental problems of ethics. 3 s.h. (w)*

 Associate Professor Morgan
- 204. Christian Ethics.—A historical and systematic study of Christian conceptions of the moral life and its problems. First semester (w) 3 s.h. Religion 291.

 PROFESSOR SMITH
- 205. The Philosophy of History.—An inquiry into the logic and methodology of the knowledge of history, and into the metaphysical implications of history.

 3 s.h. (w)

 Professor Widgery

[In alternate years—not offered in 1941-42]

208. Political Philosophy.—A critical investigation of the bases of political authority and of the ideals of political organization, with reference to prevalent political systems. 3 s.h. (w)

[In alternate years—not offered in 1941-42] Associate Professor Morgan

209-210. The Philosophy of Religion.—A critical consideration of the data of empirical religion and the constructive development of a modern philosophy of religion. 6 s.h. (w)

Professor Widgery

[In alternate years—offered in 1941-42]

- 211. Philosophy of Civilization.—The meaning and standards of civilization; its growth, decay, and survival. 3 s.h. (w)

 Associate Professor Morgan
- 213-214. History of Aesthetics.—The tracing of the historical solutions of traditional problems, such as the nature of imitation, symbolism, the ugly, the sublime, and the comic, the relation of art to nature, to morals, and to economics, the relation of the particular arts to each other, the standard of taste. 6 s.h.

 (E)

 PROFESSOR GILBERT

[In alternate years—offered in 1941-42]

217. The Philosophy of Aristotle.*—Prerequisite: course 105.

DR. McLarty

224. Contemporary Philosophy.—A study of the leading philosophical movements in Europe and America in the last fifty years.

[Not offered in 1941-42]

PROFESSOR WIDGERY

226. The History of Ethics.—Theories of morality from Socrates to the present time. 3 s.h. (w)* ASSOCIATE PROFESSOR MORGAN [In alternate years—offered in 1941-42]

231-232. Philosophy of Science.—A historical and critical survey of the relations of natural science to general philosophy. 6 s.h. (w)
ASSISTANT PROFESSOR LEONARD

236. Oriental Philosophy I.—Chinese Philosophy. 3 s.h. (w) ACTING PROFESSOR DUBS [In alternate years—offered in 1941-42]

238. Oriental Philosophy II.—Indian Philosophy. 3 s.h. (w) [In alternate years—not offered in 1941-42] Professor Widgery

241. Logic.—The characteristic structure of a logical system. Forms of propositions and of arguments. Logical relations of propositions. Levels of ASSISTANT PROFESSOR LEONARD analysis. 3 s.h. (w)

[In alternate years—offered in 1941-42]

242. Scientific Methodology.—A survey of the methods used in the different branches of the natural and social sciences in seeking and testing knowl-Assistant Professor Leonard edge. 3 s.h. (w)

[In alternate years—offered in 1941-42]

244. Nietzsche and the Nineteenth Century.—Studies in the major trends of intellectual life of the period, focused around the work of Nietzsche. 3 s.h. Associate Professor Morgan (w) [In alternate years—not offered in 1941-42]

245-246. Philosophical Foundations of Religious Belief.—6 s.h. (w) [In alternate years—not offered in 1941-42] ACTING PROFESSOR DUBS

248. Philosophy of Values.—First semester. 3 s.h. (w) [In alternate years—not offered in 1941-42] ACTING PROFESSOR DUBS

RELATED COURSES IN OTHER DEPARTMENTS

Education 200. Introduction to the Philosophy of Education.

Greek 107-108.-Plato.-Euripides.

Greek 209-210. Plato.

History 221-222. The Age of the Renaissance.

Mathematics 287. Mathematical Logic.

Mathematics 288. Foundations of Mathematics.

Physics 213-214. Contemporary Physics.

Political Science 223. Political Thought to the Seventeenth Century.

Political Science 224. Modern Political Theory.

Psychology 228. Psychology of Belief.

DEPARTMENTAL MAJOR

The student is required to take courses amounting to at least eighteen credit hours in the Department. Of these six must be Philosophy 105-106, Introduction to the History of Philosophy; and six must be from courses in the 200 series. The student is advised to consult with an instructor in the Department as to the courses most suitable to fit in his general plan of study.

Physics 113

PHYSICS

PROFESSOR NIELSEN, CHAIRMAN; PROFESSOR HATLEY, DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANT PROFESSOR CARPENTER, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS EDWARDS, NORDHEIM, SPONER; ASSISTANT PROFESSORS CONSTANT AND MOUZON; DRS. BONNER AND HEBB;

AND ASSISTANTS

The courses in physics are designed to meet the needs of three classes of students: (1) those desiring to specialize in physics with a view to work in teaching or investigation; (2) those intending to pursue the study of medicine, biology, or chemistry; (3) those looking forward to the study of engineering. The work of the first year is designed to lay a broad foundation for subsequent study.

An elementary knowledge of the calculus and credit for 12 semester-hours in physics is required in all courses numbered 200 and above.

1-2. Introductory Physics.—This course traces historically and experimentally the development of great principles. It stresses neither mathematical processes nor exact measurements. This course is open to Freshmen, Sophomores, and Juniors and meets the general science requirement. Three-hour recitation and two-hour laboratory. 8 s.h. (W & E)

Assistant Professor Carpenter; Professors Edwards and Hatley; Dr. Hebb; and Assistants

- 17-18. Engineering Physics.—A course covering the field of general physics with emphasis on fundamental principles. Open only to engineering students. 6 s.h. (E) Assistant Professor Mouzon; Drs. Bonner and Hebb
- 51-52. General Physics.—This course is designed for Sophomores and Juniors. It meets in a thorough way the requirements for entrance into the study of medicine and is well suited for the general science student. A limited number of Freshmen who present physics for entrance and who are taking the required mathematics concurrently may be admitted by permission of the instructor. Three lectures and two laboratory periods each week. Prerequisite: Mathematics 7-8 or equivalent. 10 s.h. (w)

PROFESSOR HATLEY; ASSISTANT PROFESSOR CARPENTER; AND DR. BONNER

- 57-58. Engineering Physics.—This course is a continuation of Physics 17-18 open to engineering students upon satisfactory completion of 17-18. Two lectures (e) and one three-hour laboratory (w) each week. 6 s.h.

 Assistant Professor Mouzon; Drs. Bonner and Hebb
- 59-60. Elementary Atomic Physics.—A lecture and demonstration course dealing in a descriptive manner with modern developments in physics. During the second semester particular emphasis will be placed on the specific

applications of the results and methods of modern physics to the fields of medicine and industry. Prerequisite: a year course of college physics and the calculus completed or taken concurrently. 6 s.h. (w)

PROFESSOR NIELSEN
[Not offered in 1941-42]

- 61. Mechanics.—This course covers in a thorough manner the elements of general mechanics. Special emphasis is placed on the solution of problems. Two lectures and one two-hour laboratory or problem period per week. Prerequisite: a year course of college physics and the calculus completed or taken concurrently. 3 s.h. (w)
- 62. Heat.—A study of thermometry, specific heats, thermal expansion, transfer of heat, change in state, saturated vapor, hygrometry, the laws of thermodynamics and pyrometry. Two lectures and one two-hour laboratory per week. Prerequisite: a year course in college physics and the calculus completed or taken concurrently. 3 s.h. (w) Assistant Professor Carpenter

- 65-66. Intermediate Physics.—Lecture demonstrations and recitations. A course, to follow Physics 1-2 or its equivalent, covering selected topics and including a more advanced treatment of electricity and light during the first term and in the second term an extended treatment of conduction of electricity through gases, electron theory of matter, x-rays, radioactivity, thermionics, electric waves and photo-electricity. Prerequisite: Physics 1-2 or its equivalent. 6 s.h. (w)

 PROFESSOR EDWARDS
- 103. Electricity and Magnetism.—An intermediate course covering electrostatics, magnetostatics, current theory, electromagnetism, and electron theory. Prerequisite: a year course in college physics and the calculus. Three lectures and one three-hour laboratory period per week. 4 s.h. (w)

 ASSISTANT PROFESSOR CONSTANT

104. Electrical Measurements.—Exact measurements of resistance, current, voltage, inductance and capacity. A fundamental course in electrical

engineering is a prerequisite. Two lectures and one three-hour laboratory period per week. 3 s.h. (w)

Professor Nielsen and Assistant Professor Constant

106. Photography.—A quantitative study of the more important photographic processes and the application of photography to the sciences and arts. Two lectures and one three-hour laboratory period. Prerequisite: a year course in college physics and the consent of the instructor. 3 s.h. (w)

DR. BONNER

- 108. Physical Optics.—An intermediate course dealing with reflection, refraction, interference diffraction, polarization and dispersion. Prerequisite: a year course in college physics and the calculus. Three lectures and one three-hour laboratory period per week. 4 s.h. (w)

 Professor Hatley
- 211. History of Physics.—A rapid review of the fundamental laws of physics developed from the historical point of view. 2 s.h. (w)

 PROFESSOR EDWARDS
- 213-214. Contemporary Physics.—A course which covers in a descriptive manner the fundamental concepts and experimental basis of modern theories of the structure of matter. 6 s.h. (w)

 Assistant Professor Constant
- 215-216. Atomic Physics Laboratory.—Some of the more important experiments which form the basis of modern atomic theory. Special emphasis is placed on experimental technique, valuable in original physical investigations.

 2-4 s.h. (w) Professor Nielsen and Assistant Professor Mouzon
- 217-218. Advanced General Physics Laboratory.—Exact measurements involving the fields of mechanics, electrical measurements, heat, and pyrometry.

 2 s.h. (w) Professor Nielsen and Assistant Professor Mouzon
- 219. Vacuum Tubes and Their Application.—Theory and application of vacuum tube circuits with special emphasis on their use in scientific research. Two hours of lecture and one three-hour laboratory per week. 3 s.h. (w)

 Assistant Professor Mouzon
- 221-222. Introduction to Theoretical Physics.—Lectures and problems on the fundamental principles and mathematical theory of the general field of physics, constituting a thorough foundation for subsequent specialization and more intensive study. 8 s.h. (w)

 Assistant Professor Constant
- 225-226. Elementary Investigations.—The aim of this course is to provide training in the laboratory and library methods of physical research. Properly qualified students may conduct elementary investigations under the supervision of a member of the Staff. 3-6 s.h. (w)

 The Staff

DEPARTMENTAL MAJOR

A. For the degree of A.B.:

Prerequisites: Physics 1-2 or equivalent, and Mathematics 1-2 or 7-8.

Major Requirements: 18 to 24 hours in courses approved by the Department. (Students who have a considerable number of hours in a closely allied field may, with the approval of the Department, count Physics 51-52 or Physics 57-58 as a major requirement.)

B. For the degree of B.S.:

Prerequisites: Physics 1-2, Chemistry 1-2 and Mathematics 7-8 or equivalent.

Major Requirements: Not less than 24 hours in courses approved by the Department, not less than 6 hours of which must be in the 200 group.

DEPARTMENTAL HONORS PROGRAM

Prerequisites: Physics 1-2, 51-52, or 57-58 and 6 s.h. additional work in physics above the Freshman level; Mathematics 6 s.h. and Chemistry 1-2.

Honors Program: Physics 103, 108, 215-216 and 221-222; Mathematics 51-52 and 131; electives subject to the approval of the Departmental Honors Committee, 25 s.h., or enough to satisfy the requirements for graduation, of which at least 6 s.h. must be either a course in Geology or an advanced course in Chemistry, Botany, Zoology, or Mathematics.

in Chemistry, Botany, Zoology, or Mathematics.

In addition, the student will arrange with his Adviser for the performance of a limited number of elementary physical investigations. This will consist of both readings and experimental work which in general will constitute a survey of the classical and modern aspects of physics for which 10 s.h. credit

will be allowed.

At the end of both the Junior and Senior years, the student will be given both an oral and a written examination in the field of physics.

POLITICAL SCIENCE

PROFESSOR WILSON, CHAIRMAN; PROFESSOR RANKIN, DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANT PROFESSOR GIBSON, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSOR VON BECKERATH; ASSOCIATE PROFESSORS COLE AND SHIPMAN; ASSISTANT PROFESSOR LINEBARGER; DR. SIMPSON

- 21. Principles of Government.—An introductory study of the principles and problems of government. Open to Freshmen as an elective. 3 s.h. (w & E)

 Assistant Professor Gibson and Dr. Simpson
- 22. Governmental Problems in International Relations.—A study of international politics as seen in current problems of international relations. Open to Freshmen as an elective. 3 s.h. (w & E)

Assistant Professor Gibson and Dr. Simpson

61-62. American Government and Politics.—A study of the American political system, including the organization and functioning of national, state, and local government in the United States. 6 s.h. (w & E)

PROFESSORS RANKIN AND WILSON; ASSOCIATE PROFESSORS COLE AND SHIPMAN; ASSISTANT PROFESSORS GIBSON AND LINEBARGER; DR. SIMPSON

Course 61-62 is ordinarily taken before any advanced course in political science. A student who has not had course 61-62 or equivalent work may take an advanced course in the Department with the approval of the instructor giving the advanced course.

111. Contemporary Problems in Far Eastern Politics.—An introductory survey of international politics in Eastern Asia and the Western Pacific.

3 s.h. (w)

Assistant Professor Linebarger

- 125. American Political Parties and Practical Politics.—A study of the historical development, organization, and methods of political parties in the United States. 3 s.h. (w)

 DR. SIMPSON
- 136. Major European Governments.—A study of the organization and functioning of the governments of Great Britain, Germany, Italy, and Russia. 3 s.h. (w)

 Associate Professor Cole
- 141. Public Regulation.—An introduction to the administrative process, emphasizing the nature, types and techniques of public activity; and the methods and problems of protecting the public interest. 3 s.h. (w)

ASSOCIATE PROFESSOR SHIPMAN

- 151-152. Spanish-American Political Institutions.—A study of Spanish-American governments as illustrated in Argentina, Chile, Colombia, and Uruguay. The first semester is devoted to the colonial and independence periods, the second to the national. 6 s.h. (W)

 Assistant Professor Gibson
- 172. Government and Agriculture.—A comparative study of national agricultural policies in Great Britain, Germany, Italy, France, and the United States in the nineteenth and twentieth centuries. 3 s.h. (w)

[Not offered in 1941-42] Professor von Beckerath

174. Politics and Economics.—An analysis of the influence of politically dominant forces and ideologies upon economic policies in societies of principal Western countries since the seventeenth century. 3 s.h. (w)

PROFESSOR VON BECKERATH

- 207. American Constitutional Law and Theory.—A study of leading principles of American government, as developed through judicial interpretation of the Constitution. 3 s.h. (w)

 Professor Wilson
- 209. State and Local Government in the United States.—A study of the historical development of state and local governments, their present organization, their relation to each other and to the federal government. 3 s.h. (w)

 PROFESSOR RANKIN
- 211. Political Institutions of the Far East.—A study of the governmental systems of Japan, Korea, and China from the Chou Dynasty to the present. 3 s.h. (w)

 Assistant Professor Linebarger
- 212. International Politics of the Far East.—A study of changing power relationships in the Orient since the arrival of the Europeans. 3 s.h. (W)

 Assistant Professor Linebarger
- 223. Political Thought to the Seventeenth Century.—A survey of political thought from the time of Plato to the close of the sixteenth century. 3 s.h. (w)

 Professor Wilson
- 224. Modern Political Theory.—Political theories of the seventeenth and eighteenth centuries, and of the first half of the nineteenth, with a study of their influence upon modern political institutions. 3 s.h. (w) PROFESSOR WILSON
- 225-226. Comparative Government.—A comparative study of modern political institutions, with special reference to bureaucracy, federalism, fascism, dictatorship, constitutions, representation, parliamentarism, and separation of powers. 6 s.h. (w)

 Associate Professor Cole
- 227-228. International Law.—Elements of international law, particularly as interpreted and applied by the United States. 6 s.h. (w) Professor Wilson
- 229. Recent and Contemporary Political Theory.—A study of the more significant contributions to political theory from 1850 to the present. 3 s.h. (w)
 [Not offered in 1941-42]

 Associate Professor Cole

- 230. American Political Institutions.—A study of the formation and development of institutions of the national government in the United States, with historical and analytical treatment. 3 s.h. (w)

 PROFESSOR RANKIN
- 241-242. The Administrative Process.—The function and theory of organization, delegated legislation, administrative adjudication, the control of administration, and special problems in economic balancing and proprietary activities. 6 s.h. (w)

 Associate Professor Shipman
- 244. Administrative Law.—The law of the administrative process, including the nature of regulatory authority, the status and liability of public officers, administrative tribunals and the judicial review of administrative action.

 3 s.h. (w)

 Associate Professor Shipman
- 246. Legislation.—A study of the legislative process with attention to procedure, methods, techniques, delegation of discretion, and the use of controls. 3 s.h. (w)

 Associate Professor Shipman

[Not offered in 1941-42]

- 271. Socio-Politics and Capitalism.—Labor and labor policies in Western Europe and the United States in the nineteenth and twentieth centuries. 3 s.h. (w)

 PROFESSOR VON BECKERATH
- 291. Municipal Government.—A study of problems relating to the structural system and activities of municipalities in the United States. 3 s.h. (w)

 Professor Rankin
- 292. Municipal Administration.—A study of principles and methods of municipal administration in the United States. 3 s.h. (w) PROFESSOR RANKIN

WORKING COLLECTION OF GOVERNMENT MATERIALS

It is a policy of the Department to gather and classify published and other materials of significance as illustrating actual processes of government. As a step toward the development of a laboratory of government, there has been made available in the University Library a working collection of government materials for student use both for general reference and in the handling of assigned individual projects.

DEPARTMENTAL MAJOR

Prerequisite: Political Science 61-62.

Major Requirements: Eighteen semester-hours of work in the Department above course 61-62, including at least nine semester-hours in Senior-Graduate courses.

HONORS WORK

Students who plan to take Honors in political science must have Junior standing and must have completed Political Science 61-62 and Economics 51-52 with satisfactory grades. Exceptions may be made in the case of students who are taking Economics 51-52 in their Junior year.

The Honors work will consist of two readings in political science and one in economics. In addition, a thesis will be required. The readings in political science will be given during the second semester of the Junior year and the first semester of the Senior year. The reading in economics may be selected from the offerings in that department. The thesis will be due on May 15 of the Senior year.

A weight of 15 hours will be given the readings and thesis (6-6-3) in political science. The reading in economics will increase the credit total to 21 semester-hours. The normal course load will be three courses each semester after the first semester of the Junior year, when four courses will be required. With the approval of the Departmental Honors Committee, an additional Honors Reading may be taken in a related department, with a corresponding reduction in the course requirements.

Oral or written examinations at the end of each reading and a general oral and written examination at the end of the Senior year will be required. Honors readings in political science are as follows:

Comparative Government.—The theory and practice of modern European dictatorships and democracies.

Associate Professor Cole

Political Theory.—A consideration of political theory from the French Revolution to the present, with particular reference to American and Far Eastern contributions.

Assistant Professor Linebarger

PSYCHOLOGY

PROFESSOR LUNDHOLM, CHAIRMAN; ASSOCIATE PROFESSOR ZENER, DIRECTOR OF UNDERGRADUATE STUDIES; PROFESSOR RHINE; ASSOCIATE PROFESSOR ADAMS; ASSISTANT PROFESSOR KEMP; DR. PRATT

*101. Introduction to Psychology: General Principles of Mental Activity.—
3 s.h. Assistant Professor Kemp

[To be offered in the fall and spring.]

103. Conation and Our Conscious Life.—Analysis of adult human experience and its role in adaptive and creative endeavor. 3 s.h.

PROFESSOR LUNDHOLM

104. Comparative Psychology.—3 s.h. ASSOCIATE PROFESSOR ADAMS
[In 1941-42 to be given in first semester.]

106. Abnormal Psychology.—3 s.h. [Seniors and pre-medical Juniors only.]

110. Psychology of Motivation.—3 s.h. Associate Professor Zener
114. Psychology of Personality.—3 s.h. Professor Rhine, Dr. Pratt

114. Psychology of Personality.—3 s.h. 202. Psychology of Aesthetics.—3 s.h. [Not offered in 1941-42]

206. Social Psychology.—3 s.h. Associate Professor Adams

[This course was previously numbered 201.]

207. Psychology of Memory, Perceiving, Thinking.—3 s.h.
[Offered in spring semester 1942 only.]

ASSOCIATE PROFESSOR ZENER

**209. Experimental Methods in Human Psychology.—Laboratory and lectures. 4 s.h.

Associate Professor Zener

211. Physiological Psychology.—3 s.h.

Assistant Professor Kemp

211. Physiological Psychology.—3 s.h. [Offered in spring 1942]

215. Child Psychology.—3 s.h. ASSOCIATE PROFESSOR ADAMS
**223. Abnormal Psychology.—3 s.h. Professor Lundholm

**223. Abnormal Psychology.—3 s.h.

226. Contemporary Schools of Psychology.—3 s.h.
[Not offered in 1941-42] Associate Professor Zener

228. Psychology of Belief.—2 s.h. [Seniors and graduate students only]

Professor Lundholm

Professor Lundholm

Professor Lundholm

231-232. Introduction to Research.—2 or 3 s.h.

Professors Lundholm and Rhine, Associate Professors Adams

And Zener, Assistant Professor Kemp

DEPARTMENTAL MAJOR

Prerequisites: Zoology 1 and 2 or equivalent courses in biology.

Major Requirements: Eighteen semester-hours in psychology including Psychology 101 and at least six hours in Senior-Graduate courses. The student

^{*}This course is a prerequisite for all other courses in psychology.
**Limited registration. Admission only after consultation with instructor.

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is advised to consult with some member of the Department in planning his course.

DEPARTMENTAL HONORS PROGRAM

Departmental Honors in psychology are governed by the general rules covering all Honors programs.

Prerequisite: The minimum requirement for admission to Honors in psychology is the completion of Psychology 101 with a grade of "B" or higher. Completion of Zoology 1-2 is strongly recommended.

Departmental Honors Program:

- (a) Honors Readings.—Tutorial work with a member of the Department designated by the Honors Committee. This work shall be counted as the equivalent of three semester-hours in the Junior and six semester-hours in the Senior year.
- (b) Courses in Psychology.—At least six courses in the Department in addition to the prerequisite (of which at least three must be of Senior-Graduate level).
- (c) Courses in Related Fields.—To complete the total of sixty semester-hours. All courses are to be chosen by consultation with the Departmental Honors Adviser.
- (d) At the end of the Senior year.—A final written and oral examination on the fields of psychology chosen, and an experimental or critical paper on a selected problem.

RELIGION

PROFESSOR MYERS, CHAIRMAN AND DIRECTOR OF UNDERGRADUATE STUDIES; ASSIST-ANT PROFESSOR PETRY, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS CANNON, HICKMAN, ORMOND, ROWE AND SPENCE; ASSOCIATE PROFESSOR STINESPRING; ASSISTANT PROFESSORS CLARK, CRUM, AND OUTLER; MR, LEVER AND MRS, SPENCE

The minimum uniform requirement in Religion may be fulfilled by completing six semester-hours in any of the following courses: 1-2, 51-52, 101-102, 103-104, 105-106, 114, 151, 163, 167-168, 169-170, 181-182, 191.

- 1. The English Bible.—Survey of the contents of the historical and prophetic books of the Old Testament with particular reference to the literary, historical, and religious values. Required of all students majoring in religion, and is open to others as an elective in the Freshman year. 3 s.h. (E & W)

 Assistant Professor Petry; Professors Myers and Ormond;
 Assistant Professor Crum; Mr. Lever and Mrs. Spence
- 2. The English Bible.—Study of the Psalms, wisdom literature, and the literature of the New Testament with special attention given to the literary, historical, and religious values. Required of all students majoring in religion, and is open to others as an elective in the Freshman year. 3 s.h. (E & W) ASSISTANT PROFESSOR PETRY; PROFESSORS MYERS AND ORMOND;

 ASSISTANT PROFESSOR CRUM; MR. LEVER AND MRS. SPENCE
- 51. The History of the Hebrew People.—A study of the Hebrew people that gives attention to their political history, their religious and social institutions, their literary development, with special reference to their contributions to civilization. For Sophomores; not open to students who have had Religion 1. 3 s.h. (E & W)

PROFESSORS MYERS AND SPENCE; ASSISTANT PROFESSOR OUTLER; MRS. SPENCE

52. New Testament Life and Literature.—A study of the literature of the New Testament, its historical background, and its religious value. For Sophomores; not open to students who have had Religion 2. 3 s.h. (E & W)

PROFESSOR MYERS; ASSISTANT PROFESSORS CRUM AND OUTLER; MRS. SPENCE

- 101. The Social Teachings of the Prophets and Jesus.—A study of the social teachings of the Old Testament prophets and of the social ideals of Jesus as they appear in the four gospels. 3 s.h. (w)

 PROFESSOR ORMOND
- 102. The Christian Church in the Social Order.—This course will deal with the Christian Church in its service to society and its relation to other social institutions. 3 s.h. (w)

 [Not offered in 1941-42]
- 103. The Prophets of the Old Testament.—In this course a study is made of the history and nature of prophecy, with particular attention being given to the messages of the outstanding pre-exilic literary prophets. 3 s.h. (w)
 [Not offered in 1941-42] Professor Myers
- 104. The History and Religion of the Jews to the Roman Period.—The work in this course is based largely on exilic and post-exilic prophecy, the wisdom literature, and the earlier apocalyptic and apocryphal literature. 3 s.h. (w)

 PROFESSOR MYERS

[Not offered in 1941-42]

- 105. Religion in the Old Testament.—A study of vital religious faith in Israel in relation to the political, social, and economic life of the times as that faith is reflected in the writings of the Old Testament. 3 s.h. (w)

 PROFESSOR ROWE
- 106. Religion in the New Testament.—A study of the New Testament writings as the recorded expression of the religious thought and experience which appeared in connection with the person, message, and work of Jesus; and the missionary activity of the early church. 3 s.h. (w) PROFESSOR ROWE
- 114. The Life and Teachings of Jesus.—This course considers the period in which Jesus lived, the record of his life, and the meaning of his teachings as recorded in the Synoptic Gospels. 3 s.h. (w)

 PROFESSOR MYERS
- 151. Personality and Human Values.—Problems of college students in adjusting their personalities to an age of science, machinery, social conflict and doubt. Special attention will be given to spiritual values. 3 s.h. (w)

 Professor Hart
- 163. Religious Education of Children.—An analysis of the religious life, interests and capacities of children; including a study of the problems, objectives, methods, and materials involved in teaching religion to children. Directed to the needs of the lay workers in the church. 3 s.h. (E)

 Mrs. Spence
- 167. Contemporary Religious Problems.—A course that deals with the main interests of life from the standpoint of their social and religious significance. 3 s.h. (w)

 PROFESSOR SPENCE
- 168. Masterpieces of Great Religious Literature.—This course is devoted to the religious thought in the literature from the second to the twentieth centuries, with special attention given modern religious poetry. 3 s.h. (w) (Old number SR.270.)

 PROFESSOR SPENCE
- 169. Character Problems.—Problems of youth in character building. 3 s.h.
 (w) Assistant Professor Crum
- 170. Religion and the Family.—A study of the American home in its contemporary social and religious aspects. 3 s.h. (w)
 - Assistant Professor Crum
- 181. The Nature and Early Development of Religion.—Introduction to the early history of religion, the beliefs and practices of the more primitive peoples, and the religious life of the ancient world. For Juniors and Seniors.

 3 s.h. (w)

 PROFESSOR CANNON

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- 182. Living Religions of the World.—A survey of the religious systems of India, China, and Japan, followed by a study of Judaism, Mohammedanism, and Christianity, the object being to trace the historical development of each religion. 3 s.h. (W) (Old number 282.)

 PROFESSOR CANNON
- 191. Fundamentals of Christian Morality: An Introduction to Christian Ethics. (Identical with Philosophy 119.) 3 s.h. (w)

 DR. McLarty
- 193. A Study of Materials Suitable for Public School Courses in Religion and Ethics, including the English Bible and other religious literature. 3 s.h. (w)

 Assistant Professor Crum
- 201-202. First Hebrew.—A study in the forms of the Hebrew language with reading of selected Old Testament narratives. 6 s.h. (w)

 Associate Professor Stinespring
- SR.211-212. Hellenistic Greek.—Designed for beginners to enable them to read the Greek New Testament. 6 s.h., provided the student takes six semester-hours in New Testament Greek the following year. 6 s.h. (w)

 ASSISTANT PROFESSOR CLARK
- 219. Life of Paul.—A study of Paul's life on the basis of Acts and the letters of Paul, emphasizing the permanent values in Paul's work and his contribution to the world. 3 s.h. (w)

 PROFESSOR MYERS
 [Not offered in 1941-42]
- 262. The Educational Work of the Church.—A consideration of the total task of the Church from an educational viewpoint. Attention will be given to such fundamental aspects as principles and objectives of the educative process, curriculum, supervision, worship and leadership education and guidance. 3 s.h. (W)

 PROFESSOR SPENCE
- 263. Curriculum of Religious Education.—Educational conceptions of the curriculum, values and uses of current curricula, principles and techniques of curriculum construction. 3 s.h. (w)

 PROFESSOR SPENCE
- SR.265. Religious Drama.—A historical survey of the relation between religion and drama, a study of the uses and underlying principles of religious drama, and a critical examination and interpretation of selected dramatic productions. 3 s.h. (W)

 PROFESSOR SPENCE
- 267. Technic of Teaching Religion.—Objectives and principles of the teaching process, including a discussion of the major types of educational procedure. 3 s.h. (w)

 [Not offered in 1941-42]
- SR.268. Religious Drama Construction and Production.—Project work in the creation and production of religious drama and pageants. Practice in the selection, staging, lighting, and direction of religious plays. Construction of dramatic programs of worship. 3 s.h. (w)

 PROFESSOR SPENCE
- 275. Psychology of Religion I.—An analysis of the major factors in religious experience. 3 s.h. (w)

 [Not offered in 1941-42]

 PROFESSOR HICKMAN
- 276. Psychology of Religion II.—A study of the genesis and growth of religious experience. 3 s.h. (w)

 [Not offered in 1941-42]

285. The Religions of the Far East.—A study of the religious systems of China, Korea, and Japan. 3 s.h. (w)

ACTING PROFESSOR DUBS

Note: A complete list of advanced courses in the field of Religion will be found in the Bulletin of the School of Religion.

DEPARTMENTAL MAJOR

Prerequisite: Religion 1-2, or 51-52.

Major Requirements: A major in the Department of Religion consists of twenty-four semester-hours of work, exclusive of courses primarily for Freshmen, eighteen semester-hours of which shall be selected with the approval of the instructor under whose supervision the student does his major work.

DEPARTMENTAL HONORS PROGRAM

General Rules:

I. The Departmental Honors Program constitutes the work of the Honors student during the Junior and Senior years. This program shall be the equiv-

alent of sixty semester-hours of work.

II. The minimum amount of work that may be taken in the Department of Religion shall be the equivalent of twenty-four semester-hours, and the maximum shall be the equivalent of thirty-six semester-hours. Of this, the work done in the Honors tutorials shall count fifteen hours, six hours for the Junior year, six hours for the Senior year, and three hours for the comprehensive examination at the end of the Senior year.

III. The related work, which shall constitute at least two fifths of the Honors program, that is, the equivalent of twenty-four semester-hours, must be distributed among not less than two departments, unless the departmental committee gives special permission for the student to take his related work

in one department.

Prerequisite:

The minimum requirement for admission to Honors in Religion is the completion of a course in Religion during the Sophomore year on which the student makes at least a grade of "B."

Normal Program:

The normal program for the Honors student in the Junior year shall consist of the Honors tutorial, two courses in the Department of Religion, and two courses in related departments; in the Senior year the work shall consist of the Honors tutorial, one and one-half courses in Religion, and two in related departments.

General Honors Examinations:

Two comprehensive written examinations and a supplementary oral examination will be held at the end of the Senior year to test the student's knowledge of the special field in which he has done his honors work.

ROMANCE LANGUAGES

PROFESSOR WEBB, CHAIRMAN AND DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANT PROFESSOR DAVIS, SUPERVISOR OF FRESHMAN INSTRUCTION IN FRENCH;
ASSISTANT PROFESSOR HASBROUCK, SUPERVISOR OF FRESHMAN INSTRUCTION IN SPANISH; PROFESSORS COWPER AND JORDAN; ASSOCIATE
PROFESSORS LUNDEBERG AND WALTON; ASSISTANT PROFESSORS BRIDGERS, QUYNN, RAYMOND, REID, AND YOUNG;
DR. DOW, M.M.E. DOW, M.R. PRATT; AND ASSISTANTS

The courses in French from 1 to 52 inclusive, 57-58, and 87-88 are for the general student. They give a reading knowledge of standard French and furnish an introduction to French letters. Courses 55-56, 107, 127-128, and 217

offer training in the French language. The literary courses are devoted to the systematic study of classical and modern French literature. Advanced students are offered an introductory course in Old French and Old French literature. Those planning to teach will find in course 218 a treatment of the teaching of French and Spanish.

The course in Italian includes the reading of Dante's *Inferno*. The courses in Spanish from 1 to 66 inclusive are for the general student. Their objective is the attainment of ability to read the language with sufficient ease to be able to interpret standard literary Spanish. Courses 71 and 72, 253 and 260 offer further training in the oral and written use of the language. The remaining courses are devoted to the interpretation of modern and classic Spanish and Spanish-American literature.

FRENCH

1-2. Elementary French.—6 s.h. (w & E)

PROFESSOR WEBB; ASSISTANT PROFESSORS BRIDGERS AND QUYNN; DR. DOW

3-4. French Prose.—Prerequisites: French 1 and 2, or two years of highschool French. 6 s.h. (w & E)

PROFESSORS COWPER AND JORDAN; ASSOCIATE PROFESSOR WALTON; Assistant Professors Bridgers, Davis, Quynn, AND RAYMOND; DR. DOW AND MME. DOW

51-52. Introduction to French Literature.—Prerequisites: French 3 and 4 or equivalent. 6 s.h. (w & E)

> Professors Cowper and Jordan; Assistant Professors Bridgers, DAVIS, QUYNN, RAYMOND, AND YOUNG; DR. DOW

57-58. Introduction to French Literature.—Identical in content with 51-52 this course has less translation into English. Various exercises will replace translation. Considerable use will be made of French in conducting the course. Open to those whose previous training or superior record indicates that they are qualified. Prerequisites: French 3 and 4 or equivalent. 6 s.h. (w & E) PROFESSOR WEBB AND ASSOCIATE PROFESSOR WALTON

Students will take course 51-52 or 57-58. They will not take both 51 and 57 or 52 and 58. Total credit in these courses is limited to six semester-hours. They are the basic prerequisites to all higher courses.

55. Exercises in Spoken French.—1 s.h. (w & E)

MME. LINIÈRE DOW

56. Exercises in Spoken French.—1 s.h. (w & E)

MME. LINIÈRE DOW

55 and 56 may be taken with 51-52 or courses of a higher number.

87-88. French Writers of the Romantic Movement.-6 s.h. (E)

Assistant Professor Davis

May not be taken with or in addition to course 108.

107. French Composition.—3 s.h. (w & E)

Professor Cowper and Assistant Professor Raymond

108. The French Romantic Movement.—3 s.h. (W & E)

Professor Cowper and Assistant Professor Raymond May not be taken with or in addition to course 87-88.

- 111. French Drama since 1850.—3 s.h. (E) Assistant Professor Young
- 112. French Drama since 1850.—3 s.h. (E) Assistant Professor Young
- 115. Balzac and His Age.—3 s.h. (w) Assistant Professor Bridgers

- 116. Balzac and His Age.—3 s.h. (w) Assistant Professor Bridgers
- 127. Advanced French Composition.—Prerequisite: French 107 or equivalent. 3 s.h. (w) MME. LINIÈRE DOW
- 128. Advanced French Composition.—Prerequisite: French 107 or equivalent. 3 s.h. (w) MME. LINIÈRE DOW
 - 213. French Classicism.—From Malherbe to La Bruyère. 3 s.h. (w) ASSOCIATE PROFESSOR WALTON
- 214. French Classicism.—From La Bruyère to the Encyclopedists and ASSOCIATE PROFESSOR WALTON Beaumarchais. 3 s.h. (w)
- 215-216. The Modern French Novel.—A survey of the novel form from the seventeenth to the twentieth centuries, with particular attention to the analysis of fundamental literary tendencies: classicism, rationalism, romanticism, and realism. Prerequisite: 87-88 or 3 s.h. from courses 108 to 116. PROFESSOR LORDAN 6 s.h. (W)
- 217. French Phonetics.—French sounds and French spelling; pronunciation drills; exercises in phonetic transcription and dictation; diction; aural comprehension. Prerequisite: 3 s.h. from courses 107 or 127-128. 3 s.h. (w) [Second semester] PROFESSOR WEBB
- 218. Materials and Methods.—History of the teaching of French and Spanish; methods; the course of study; analysis and criticism of representative texts; tests and examinations; objectives in the light of teaching conditions, equipment and future application. Prerequisites: for French, 107; or equivalent for Spanish. 3 s.h. (w) PROFESSOR WEBB [First semester]
- 219. Old French.—An introduction to the Old French language and literature. The Chanson de Roland—Aucassin et Nicolette. 3 s.h. (w) PROFESSOR COWPER

- 220. Old French.—Types of Old French literature. The Romances of Chivalry. 3 s.h. (w) Professor Cowper
- 227. French Poetry since Théophile Gautier.-Parnassianism and symbolism. 3 s.h. (w) Associate Professor Walton [Not offered in 1941-42]
 - 232. Rousseau and the Beginnings of Romanticism.—3 s.h. (w) [Not offered in 1941-42] PROFESSOR COWPER
- 233. Main Currents of Modern French Literature.- A survey of the principal literary tendencies from the seventeenth to the nineteenth centuries. Selected illustrative readings from leading authors. 3 s.h. (w) Professor Webb [Not offered in 1941-42]

ITALIAN

181-182. Italian.—Introduction to the language, modern Italian readings, and Dante's Inferno. 6 s.h. (w) Professor Webb

ROMANCE LITERATURE IN TRANSLATION

191-192. Masterpieces of Romance Literature in English Translation.— Dante, Boccaccio, Petrarch, Machiavelli, Rabelais, Montaigne, Descartes, Cervantes, Calderón, Quevedo, Racine, Corneille, Molière, Voltaire, and Rousseau. 6 s.h. (w)

Assistant Professor Hasbrouck

[Enrollment limited to twenty-five students]

SPANISH

1-2. Elementary Spanish.-6 s.h. (w & E)

Assistant Professors Davis, Hasbrouck, Quynn, Reid, and Young; Dr. Dow and Mr. Pratt

3-4. Intermediate Spanish.—Prerequisites: Spanish 1-2 or two years of high-school Spanish. 6 s.h. (w & E)

Associate Professor Lundeberg; Assistant Professors Bridgers, Hasbrouck, Quynn and Reid

65. Introduction to Modern Spanish Literature.—Prerequisites: Spanish 3-4 or equivalent. 3 s.h. (w & E)

Associate Professor Lundeberg; Assistant Professors Hasbrouck and Reid

66. Introduction to Spanish Literature of the Golden Age.—Prerequisites: Spanish 65 or equivalent. 3 s.h. (w & E)

Associate Professor Lundeberg; Assistant Professor Hasbrouck

Spanish 65-66 are the basic prerequisites to all higher courses.

- 71. Exercises in Spoken Spanish.—Prerequisites: completion of Spanish 4 or equivalent and approval of instructor. Normally this course should be taken concurrently with Spanish 65-66. (Enrollment limited to fifteen students.) 1 s.h. (W & E)

 Assistant Professor Reid
 - 72. Exercises in Spoken Spanish.—1 s.h. (w) Assistant Professor Reid
- 155-156. Survey of Spanish-American Literature.—Reading and discussion of representative texts illustrating the cultural development from Colonial times to the present. Prerequisites: Spanish 65-66 or special permission.
 6 s.h. (w)

 Assistant Professor Reid
- 157-158. The Modern Spanish Theater.—Prerequisites: Spanish 65-66 or 3-4 with permission. 6 s.h. (w)

 [Not offered in 1941-42]

 Assistant Professor Hasbrouck
- 253. Spanish Phonetics.—The sounds of the Spanish language; sound changes; exercises in transcription; regional pronunciation; intonation; limited use of electrical recording machines. Prerequisites: Spanish 65-66. (Enrollment limited to fifteen students.) 3 s.h. (w)

Associate Professor Lundeberg

260. Advanced Syntax and Composition.—Systematic review of Spanish syntax; free oral and written composition; selected translation assignments; epistolary forms, etc. Conducted mainly in Spanish. Prerequisites: Spanish 65-66. (Enrollment limited to fifteen students.) 3 s.h. (w)

Assistant Professor Reid

261-262. The Modern Spanish Novel.—The evolution of the novel from the costumbrista writers through the generation of 1898. Prerequisites: 6 s.h. from courses 155 to 158 inclusive, or 65-66 with permission. 6 s.h. (w)

[Not offered in 1941-42] Associate Professor Lundeberg

- 265. Golden Age Literature: Cervantes.—The Novelas ejemplares; analytic study of the tales, their style, literary importance and influence. Prerequisites: 6 s.h. from courses 155 to 158 inclusive, or 65-66 with permission. 3 s.h. (w)

 Associate Professor Lundeberg
- 266. Golden Age Literature: The Don Juan Theme.—Study of representative Don Juan plays of the Golden Age, with reference to use of this motif by later writers. Prerequisites: 6 s.h. from courses 155 to 158 inclusive, or 65-66 with permission. 3 s.h. (w)

 Associate Professor Lundeberg

[Not offered in 1941-42]

For methods of teaching Spanish see French 218.

DEPARTMENTAL MAJOR

Prerequisites: French 1-2, 3-4, or equivalent, for French. Spanish 1-2, 3-4, or equivalent, for Spanish.

Major Requirements: In French, twenty-four semester-hours of work must be completed in courses above the Freshman level, and must include: (a) six semester-hours from the group 107, 127-128, 217; (b) six semester-hours of literature in courses numbered 213 to 233.

In Spanish, twenty-four semester-hours must be completed as follows: twelve semester-hours in the courses 65-66, 155-156, 157-158; twelve semester-hours from the group 253, 260, 261-262, 265-266.

Students desiring the recommendation of the Department for the teaching of French or Spanish will take in addition course 218.

DEPARTMENTAL HONORS PROGRAM

Prerequisites: Completion of 51-52 or 57-58 by the end of Sophomore year in a manner satisfactory to the Departmental Committee.

Honors work in French includes:

(a) Training in the use of written and oral French; composition, résumé, and literary commentary in French. 3 s.h. each semester of Junior and Senior years, total 12 s.h.

(b) Readings in French literature.

(1) Survey of chief authors. 3 s.h. each semester or 12 s.h.

- (2) Genre studies beginning with the modern novel. 3 s.h. each semester or 12 s.h.
- (c) Comprehensive examination.

(d) Related work: 24 s.h.

SOCIOLOGY

PROFESSOR ELLWOOD, CHAIRMAN; PROFESSOR JENSEN, DIRECTOR OF UNDERGRADUATE STUDIES; PROFESSOR HART; ASSOCIATE PROFESSORS GILLIN AND THOMPSON

- 91-92. General Sociology.—The same as course 101, except that it gives an additional hour of credit to permit the introduction of more concrete materials, and admits Sophomores with an average grade of not less than "C" during the Freshman year. 6 s.h. (E)

 PROFESSOR JENSEN
 (W)

 ASSOCIATE PROFESSOR GILLIN
- 101. General Sociology.—An introduction to the scientific study of social life; its origin, evolution, and organization as illustrated by the study of a number of concrete social problems. This course is repeated each semester and it, or its equivalent course 91-92 or course 231-232, is prerequisite to all other courses in sociology. 5 s.h. (w)

 PROFESSOR ELLWOOD
 - 102. General Sociology.—The same as course 101. 5 s.h. (w)
- 109. Sociology of the South.—The developing regional organization of the world economy studied with especial reference to Southern life and problems. A survey of the composition and distribution of population, races and race relations: economic conditions underlying population, race factors, and culture of the South. Primary emphasis is upon social change and its control. Prerequisite: course 91-92, 101 or 231-232. 3 s.h. (w)

ASSOCIATE PROFESSOR THOMPSON

111. Introduction to Child Welfare.—A special course in child welfare for Juniors and Seniors. Prerequisite: course 91-92, 101 or 231-232. 3 s.h. (w)
PROFESSOR JENSEN

Sociology 127

114. Race Relations.—Against the background of a preliminary study of interracial experiences in other parts of the world an effort is made to understand more clearly the racial situation in the Southern States. Prerequisite: course 91-92, 101 or 231-232. 3 s.h. (w)

ASSOCIATE PROFESSOR THOMPSON

122. Personality and Culture.—Problems of college students in adjusting their personalities to the social institutions of which they are, or are to be, parts. Prerequisite: Sociology 91-92, 101 or 231-232. 3 s.h. (w)

PROFESSOR HART

- 205. Social Pathology.—A study of the causes, extent, significance, and constructive treatment of the principal forms of pathology in modern society: poverty, physical defectiveness, malnutrition, mental deficiency, mental disease, undirected leisure activities, and unstandardized commercial recreation, alcoholism, prostitution, vagrancy, and delinquency. Prerequisite: course 91-92, 101 or 231-232. 3 s.h. (w)
- 206. Criminology.—A study of the original tendencies of man and the problem of socializing these tendencies; the relations of physical and mental defectiveness and untoward influences in the home and neighborhood to crime; the development of criminological theory and procedure, emphasizing penal and reform methods, and especially modern methods of social treatment and prevention of crime. Prerequisite: course 91-92, 101 or 231-232. 3 s.h. (w)

 PROFESSOR IENSEN
- 212. Child Welfare.—A study of heredity and environment as factors in personality development; infant conservation; welfare responsibilities of the school, emphasizing the physical and mental well-being of the child, play, and compulsory and industrial education; child labor, diagnosis and treatment of delinquency; care of the dependent and neglected child; child-caring agencies, public and private; and a community program of child welfare. Prerequisite: course 91-92, 101 or 231-232. 3 s.h. (w) PROFESSOR JENSEN [Not offered in 1941-42]
- 213. Constructive Social Policies.—An intensive study of the theories and legislation dealing with such problems as compensation, vocational reeducation, and other methods of social insurance and social improvement. Prerequisite: course 91-92, 101 or 231-232. 2 s.h. (w) PROFESSOR JENSEN [Not offered in 1941-42]
- 217. Race and Culture.—An analytical study of racial and cultural relations and problems of the Indian, the Negro and other minority groups in historical and contemporary situations. Prerequisite: course 91-92, 101 or 231-232. 3 s.h. (w)

 Associate Professor Thompson
- 219. Urban Sociology.—This course studies the function of the city in the larger community which it nucleates both as market and as industrial center. More detailed attention, however, is given to the inner life and problems of the city. Prerequisite: course 91-92, 101 or 231-232. 3 s.h. (w)

 Associate Professor Thompson
- 220. Rural Sociology.—A study of the societies developed by people who settle the land and exploit it for a livelihood. The institutions peculiarly rural are the farm family, the peasant village, the ranch, and the plantation. In this course special attention is given to the plantation and the rural problems of the South. Prerequisite: course 91-92, 101 or 231-232. 3 s.h. (w)

ASSOCIATE PROFESSOR THOMPSON

227. Emigration and Immigration.—A study of territorial movements of population with especial reference to Europe and America. Causes and extent of migration; its effect upon American and European society; origin and characteristics of immigrant groups and their organizations in the New World; problems, agencies, and processes of assimilation. Prerequisite: course 91-92, 101 or 231-232. 3 s.h. (w)

[Not offered in 1941-42]

- 231. General Anthropology.—A survey of mankind and its cultural activities from the earliest times to the present day: fossil man and the development of the present species; modern races and varieties; first steps and later elaborations in tools and other material creations, language, family life, and social organization, political institutions, art, and religion. Special attention will be ASSOCIATE PROFESSOR GILLIN given to the simpler societies. 3 s.h. (w)
- 232. Cultural Anthropology.—A study of the dynamics of culture and its varieties, using materials from the simpler societies in various parts of the world: functions of culture, psychological aspects, the individual and culture, environmental aspects, cultural growth and change, acculturation; applications of these concepts to certain contemporary problems. Prerequisite: course 91-92, Associate Professor Gillin 101, or 231. 3 s.h. (w)
- 234. Social Ethics.—An attempt to develop answers to such questions as: How can potential leaders discover and acquire the skills required for rendering their fullest service to their fellow men—particularly capacities for creative co-operation and insight? On what intellectually and scientifically sound basis can one formulate the fundamental policies of one's life? On what ultimate criteria are social policies to be based? 3 s.h. (w) Professor Hart
- 237. Indians of North America.—Origin and early developments of aboriginal populations; development and distribution of tribes, their customs and languages; Indian influences on Euro-American culture; present status of the Indians; considerations of the culture-environment relationship in the light of comparisons between aboriginal and modern American life. Prerequisite: course 231. 3 s.h. (w) Associate Professor Gillin
- 238. Anthropology of South America.—The aboriginal races and cultures of South America; origins, development; distribution and variations at the time of the Discovery; Iberian and African racial importations of the past 400 years; the contemporary fusion and mixtures in such areas as Brazil, the Andean highlands, etc., and their relation to certain contemporary problems. Prerequisite: course 231. 3 s.h. (w)

 Associate Professor Gillin
- 242. Marriage and the Family.—An analysis of contemporary marriage and family experience with emphasis on its functions, problems, resources, and values. Sociology 91-92, 101 or 231-232. 3 s.h. (w) PROFESSOR HART
- 252. Education and Social Control.—A study of education as an agency of social control and of social progress from primitive times to the present. Prerequisite: course 91-92, 101 or 231-232. 2 s.h. (w) Professor Ellwood

DEPARTMENTAL MAJOR

Students desiring to take a major in sociology are required to complete course 91-92 or 101 or 102 or 231-232 and twelve additional hours in the Department, at least six of which must be from courses numbered 200 or over.

ZOOLOGY 129

ZOOLOGY

ASSOCIATE PROFESSOR GRAY, CHAIRMAN AND DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANT PROFESSOR BOOKHOUT, SUPERVISOR OF FRESHMAN INSTRUCTION; ASSISTANT PROFESSOR JEFFERS, SUPERVISOR OF FRESHMAN INSTRUCTION (WOMAN'S COLLEGE); PROFESSORS CUNNINGHAM, HALL, HARGITT, PEARSE; DRS. CULBRETH, JOHNSON, TUCKER, WHARTON, WILSON; AND ASSISTANTS

- 1. General Zoology.—A brief survey of the animal kingdom. 4 s.h. (w & E) Assistant Professors Bookhout and Jeffers; Drs. Culbreth, Johnson, Wharton, Tucker; and Assistants

2. Animal Biology.—A study of the principles of biology as applied to animals. Prerequisite: Zoology 1. 4 s.h. (W & E)

Associate Professor Gray and Assistant Professor Jeffers;

Assistant Professor Bookhout; Drs. Culbreth, Tucker,

Wharton, Wilson; and Assistants

- 53. Comparative Vertebrate Anatomy.—A study of the anatomy and evolution of the organ systems of vertebrates. Prerequisites: Zoology 1 and 2. 4 s.h. (W & E) Associate Professor Gray and Dr. Culbreth; DRS. WHARTON AND WILSON
- 92. General Embryology.—A study of the fundamental principles of embryology as illustrated in the frog, chick, and mammal. Prerequisite: Zoology 53. 4 s.h. (w & e) Professor Cunningham and Assistant Professor JEFFERS; Dr. JOHNSON
- 109. Evolution.—The facts and theories of organic evolution. Prerequisite two years of zoology. 2 s.h. (w) Dr. Johnson
- 110. Introduction to Genetics.—The principles and practical applications of genetics as applied to animals, including man; family and twin studies. Prerequisite: One year of zoology. 2 s.h. (w) Dr. Jоннson
- 151. Comparative Physiology.—The primary functions of animals of all groups and a more detailed study of the physiological processes in mammals. Prerequisite: Zoology 53. 4 s.h. (w) first semester and (E) second semester for women.

PROFESSOR HALL AND DR. CULBRETH; DR. WILSON; AND ASSISTANTS

- 156. Vertebrate Histology.—The microscopic structure of normal tissues and organs of the vertebrate body. Training will be given in the preparation of material for microscopic study. Primarily for major students in zoology and not recommended for pre-medical students since a similar course is given in the first-year medical curriculum. Prerequisite: Zoology 53. One lecture and PROFESSOR HARGITT three laboratory periods. 4 s.h. (w)
- 161. Animal Parasites.—A consideration of animal parasites, with emphasis upon those infesting man. Prerequisite: one year of zoology. 4 s.h. PROFESSOR PEARSE (w)

FOR SENIORS AND GRADUATES

204. Advanced Parasitology.-Lectures, conferences, readings, and laboratory work, dealing with practical and theoretical matters relating to animal parasites. Offered in alternate years. Prerequisite: Zoology 161. 3 or 4 s.h. (w) Professor Pearse

[Not offered in 1941-42]

219, 220. Special Problems.—Senior majors who have had proper training may be permitted to carry on special work. Permission must be obtained from the Director of Undergraduate Studies and the instructor under whom the student wishes to work. Not more than 4 s.h. (w) STAFF

- 222. Entomology.—A study of anatomy, physiology, embryology, and classification of insects. Offered in alternate years. Prerequisite: one year of zoology. 4 s.h. (w)

 Associate Professor Gray
- 224. Vertebrate Zoology.—A study of life histories, adaptations, ecology, and classification of vertebrate animals. Offered in alternate years. Prerequisite: Zoology 53. 4 s.h. (w)

 [Not offered in 1941-42]

 Associate Professor Gray
- 229. Endocrinology.—The structure, physiology, and embryology of the endocrine glands. Lectures, reading assignments, and reports. Prerequisite: Zoology 53 and 92. 3 or 4 s.h. (w)

 Professor Cunningham
- 256. Seminar: Current Developments in Physiological Zoology.—Prerequisite: Zoology 151. Open only to Seniors. 2 s.h. (w)

 PROFESSOR HALL
- 274. Invertebrate Zoology.—A study of structure, function, and habits of invertebrate animals under normal and experimental conditions. Field trips will be made to study, collect, and classify animals in their natural habitats. Prerequisites: Zoology 1 and 2. 4 s.h. (w) Assistant Professor Bookhout

RELATED COURSES WHICH MAY BE COUNTED TOWARD A MAJOR IN ZOOLOGY

Botany 101. Principles of Heredity.—3 or 4 s.h. (w)

ASSISTANT PROFESSOR PERRY

Botany 103. General Bacteriology.—4 s.h. (E & W) PROFESSOR WOLF

Botany 202.—Genetics.—4 s.h. (w) Assistan

Assistant Professor Perry

DEPARTMENTAL MAJOR

Prerequisites: Zoology 1 and 2.

Major Requirements: Twenty-four semester-hours including courses 53, 92, and 151. The remaining twelve hours may be from any other courses for which the student is eligible.

DEPARTMENTAL HONORS PROGRAM

For admission to candidacy for Honors in zoology a student is expected to have completed zoology courses 1, 2, 53, 92 and not less than eight semester-hours of chemistry.

Honors work consists of regular courses and independent study; the program, however, will not be the same for all students. Zoology 151 is required of all zoology majors; the number and nature of other courses to be taken in zoology and in related subjects will depend upon the needs and interests of the student. The usual number of semester courses will be four to six in Zoology and six in other subjects in the Natural Science Group.

In addition to regular courses each student shall read in such fields as history of biology and zoological theories, or in special fields, and shall undertake a special research problem under the direction of some member of the Staff whom the student may select. The student may be asked to prepare written reports on his readings and must present a written report on his research problem. Readings and problem count for nine to twelve semester-hours.

At the end of the Junior year an examination will be given to test the student's ability to correlate material and to determine his fitness to continue in the Honors Group. At the end of the Senior year a general comprehensive examination covering the entire field of study must be passed.

THE COLLEGE OF ENGINEERING

ADMISSION

Admission to the College of Engineering of Duke University is on a selective basis, dependent upon the ability, attainments, and character of the applicant. No student is admitted until the Council on Admissions has received for him a scholastic record from school or college, a certificate of vaccination and of good health, and satisfactory evidence of good character and ability. Prospective students and relatives are invited to visit the University and the College of Engineering in particular. This would be advantageous to the applicant since it would enable him to acquaint himself with the facilities of the University, and to discuss possible courses of study.

Certain days are announced in the University Calendar each year for the registration, classification, and sectioning of students. Those students who are admitted later than the dates announced must pay to the Treasurer \$5.00 additional for the privilege of matriculation.

An applicant for admission to the Freshman Class in engineering must have completed at least fifteen units of preparatory work, partly in required and partly in elective subjects. A unit represents a year of work in a subject in an accredited secondary school, provided the work done in that subject is approximately one fourth of the annual amount of work regularly required in the school.

The subjects in which this credit may be offered and the maximum amount of credit acceptable in each subject are given in the following table:

UNITS	UNITS
English 4	Botany 1
Latin 4	
Greek	General Biology 1
German 3	Physical Geography 1
	General Science 1
Spanish 3	Agriculture
Mathematics 4	
History and Civics 4	Woodwork, Forging, and
Physics 1	Machine Work 2
Chemistry 1	
	Commercial Subjects

For a detailed explanation of the units in the table above, see the definitions as set forth by the Southern Association of Colleges and Secondary Schools and other regional associations.

ADMISSION BY CERTIFICATE

Applicants able to submit certificates of proficiency from accredited schools in subjects accepted for admission to the Freshman Class will be

admitted without examination. These certificates must be properly made out on the regular blanks furnished by the University, signed by the principal of the school from which the applicant comes, and presented before or at the opening of the academic year. The applicant must have completed the course of the school from which he comes.

At least nine and one-half of the fifteen units required for admission must come from the following:

Required Units

English	3	units
Foreign Language	2	units
*Science		
History		
**Algebra1½ or	2	units
Plane Geometry	1	unit

Elective Units

In addition to the above required units, sufficient elective units must be offered to make a total of fifteen. It is recommended that these electives he chosen from the following list.

ciectives be chosen from the following list.			
Algebra		1/2	unit
Solid Geometry		1/2	unit
Trigonometry		1/2	unit
†German or French or Latin or Spanish or Greek	1	to 4	units
History or Civics (not the required unit)	1	to 3	units
Physics or Chemistry or Biology (not the			
required unit)	1	to 3	units

ADMISSION BY EXAMINATION

Students who present fifteen units for admission from schools not accredited by the University, and students who present the proper units but whose grades are not acceptable, are required to validate their units by entrance examinations in English and in mathematics and such other tests as the University may prescribe, including the test required by the North Carolina College Conference.

Students who have not the required units in English or in mathematics but who are otherwise acceptable must, before admission, clear this deficiency by entrance examinations.

ADMISSION TO ADVANCED STANDING

Students may be admitted to advanced standing from other approved institutions under the following conditions: All applicants must have ful-

^{*}Wherever possible physics or chemistry should be offered for this requirement.

*Examination required to validate offering.

†One elective unit in any of the above languages will be accepted for admission provided the language requirement has been satisfied without it. As many as four units will be accepted in any one of these languages.

filled the equivalent of the requirements for admission to the Freshman Class, must present official certificates of all work done in other institutions and have honorable dismissal from the institutions they previously attended.

Applicants for advanced standing should present, so far as possible, subjects corresponding to those required at Duke University. Students admitted to advanced standing may not during their first semester elect more than the minimum number of hours required of the class which they enter except by permission of the Dean. Further, in addition to other requirements, a minimum of one full year in residence at Duke University with the satisfactory completion of at least thirty semester hours of work approved for Seniors, with an average grade of "C," is required of all candidates for the Bachelor's degree.

Students who have transferred from other colleges must, in order to make their provisional classification final, pass during their first year of residence not less than the equivalent of four year courses with an average grade of "C" or higher.

The date for the registration and classification of students with advanced standing from other institutions is announced in the University Calendar. Students who are admitted later than this date are required to pay to the Treasurer \$5.00 additional for the privilege of matriculating.

FRESHMAN WEEK

The week immediately preceding the opening of College is set aside for the induction of Freshmen. During this period health examinations, psychological tests, and placements tests are given, on the basis of which Freshmen are sectioned in English and mathematics. The Freshmen are divided into groups for instruction in the use of the Library, in the regulations of the student body, and in all matters pertaining to the adjustment of the individual to a new environment. Attendance upon these exercises is required of all Freshmen.

SPECIAL STUDENTS

Students of mature age not fully prepared to enter the Freshman Class may be admitted as special students and allowed to enroll for such work as they are prepared to carry. Further, they are required to take fifteen hours of classwork a week.

FEES AND EXPENSES

Information as to fees and expenses and room accommodations applicable to the College of Engineering is given, along with similar information for Trinity College and the Woman's College, on pages 156-161.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN CIVIL, ELECTRICAL, OR MECHANICAL ENGINEERING

GENERAL STATEMENT

The studies for the degree of Bachelor of Science in Civil, Electrical, or Mechanical Engineering are designed for students who are preparing for civil, electrical, or mechanical engineering, as a profession, and lead to the following degrees: B.S. in C.E., B.S. in E.E., and B.S. in M.E.

Each of these degrees requires one hundred and thirty-eight semester-hours of work of which one hundred and twenty-two must be completed with an average grade of "C." Six semester-hours of electives must be taken in the Department of Economics or of Political Science. If a foreign language is elected, it must be taken two years unless a student has sufficient entrance credits to enable him to pursue a more advanced course.

Prospective students should note that immediately after the final examinations in May or June a three-weeks course in surveying is given under the direction of the Summer School. This course is required of all civil engineering students at the end of their Freshman year and is required of all other engineering students before graduation.

GROUPS OF STUDIES FOR THE DEGREE OF BACHELOR OF SCIENCE IN CIVIL, ELECTRICAL, OR MECHANICAL ENGINEERING

GROUP I

CIVIL ENGINEERING

Freshman Vear

1 / 63/1/10	in i cur
FIRST SEMESTER	SECOND SEMESTER
S.H.	S.H.
Mathematics 9 5 Chemistry 1 4 English 1 3 Physics 17 3 Drawing 1 2 Physical Education	Mathematics 10 5 Chemistry 2 4 English 2 3 Physics 18 3 Drawing 2 2 Physical Education
Three weeks of Surveying 10 in sun Sophome	
Mathematics 59 4 Physics 57 3 Statics 7 3 Surveying 11 2 Highways 15 3 Economics 51 3 Physical Education 3	Mathematics 60 4 Physics 58 3 Kinetics 8 2 Materials 118 3 Highways 117 2 Economics 52 3 Physical Education

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Requirements for	THE B.S. DEGREE 135
Junior	Vear
Strength of Materials 107	Hydraulics 108
16	16
Senior	Year
Hydraulic Eng. 123 4 Concrete 133 3 Railroads 119 3 Seminar 137 1 Electives 6 17	Hydraulic Eng. 124 4 Concrete 134 3 Railroads 120 2 Seminar 138 1 Astronomy 112 2 Electives 5
GROU	P II
ELECTRICAL F	
Freshma	
## S.H. Mathematics 9	SECOND SEMESTER S.H.
Three weeks of Surveying 10 in sum	mer. Credit, 3 semester-hours.
Sophomo	re Year
Mathematics 59 4 Physics 57 3 Statics 7 3 Electrical Engineering 51 3 Economics 51 3 Steam Engineering 85 2 Physical Education 1	Mathematics 60 4 Physics 58 3 Kinetics-Mechanism 82 4 Electrical Engineering 52 3 Economics 52 3 Physical Education - 17
Junior	Year
Theory of D. C. Circuits 151	Theory of A. C. Circuits 152 3 Strength of Materials 107 4 Electrical Circuits Lab. 162 1 Heat Power Eng. 182 3 Electrical Measurements 104 3 Mechanical Engineering Laboratory 200 1 15

Senior Year

Semor	Year
A. C. Machinery 257 3 Electric-Pow. Trans. 159 3 Communication 261 3 D. C. Machinery 155 2 D. C. Machinery Lab. 163 1 Seminar 165 1 Electives 6	Electric-Pow. Stations 158 3 Communication 262 4 Seminar 166 1
GROU	PIII
Martina	Excampana

Mechanical Engineering		
Freshmo	n Year	
FIRST SEMESTER	SECOND SEMESTER	
S.H. Mathematics 9 5 Chemistry 1 4 English 1 3 Physics 17 3 Drawing 1 2 Physical Education	S.H. Mathematics 10 5 Chemistry 2 4 4 English 2 3 Physics 18 3 Drawing 2 2 Physical Education	
17	17	
Three weeks of Surveying 10 in sun	mer. Credit, 3 semester-hours.	
Sophomo	re Year	
Mathematics 59 4 Physics 57 3 Statics 7 3 Constructive Processes 79 3 Economics 51 3 Physical Education	Mathematics 60 4 Physics 58 3 Kinetics-Mechanism 82 4 Steam Engineering 86 3 Economics 52 3 Physical Education	
16	17	
——————————————————————————————————————		
Junior	Year Machine Design 170 3 Internal Comb. Engines 186 3 Electrical Engineering 154 3 Thermodynamics 188 3 Mechanical Engineering 2 Laboratory 190 2	
Hydraulics 185 3 Strength of Materials 107 4 Electrical Engineering 153 3 Thermodynamics 187 3 Mechanical Engineering Laboratory 189 1 Electives 3	Year Machine Design 170 3 Internal Comb. Engines 186 3 Electrical Engineering 154 3 Thermodynamics 188 3 Mechanical Engineering 2 Laboratory 190 2 Electives 3	
Junior	Year Machine Design 170 3 Internal Comb. Engines 186 3 Electrical Engineering 154 3 Thermodynamics 188 3 Mechanical Engineering 2 Laboratory 190 2 Electives 3	

MECHANICAL ENGINEERING-AERONAUTICS OPTION

Since this bulletin went to press a new building has been authorized for the College of Engineering which will be used as an aeronautics laboratory. Starting with the academic year 1941-42 aeronautics courses will be offered for Juniors and Seniors. Prerequisites for this mechanical engineering option are the first two years of the curriculum as outlined in the Engineering Bulletin.

COURSES OF INSTRUCTION, COLLEGE OF ENGINEERING

PROFESSOR HALL, DEAN; PROFESSOR BIRD, CHAIRMAN CIVIL ENGINEERING; PROFESSOR SEELEY, CHAIRMAN ELECTRICAL ENGINEERING; PROFESSOR WILBUR,
CHAIRMAN MECHANICAL ENGINEERING; ASSISTANT PROFESSORS
MEIER, REED, AND WATSON; MESSRS. CHAPMAN, KRAYBILL,
SERRELL, THEISS, VAIL, AND WILLIAMS

GENERAL ENGINEERING

- 1-2. Engineering Drawing.—The study and practice of mechanical drawing of elementary machine parts with special reference to such topics as dimensioning, material specifications and elements of intersections, projections and developments. Six laboratory hours. 4 s.h. (E)

 MR. SERRELL
- 5. Descriptive Geometry.—Problems relating to point, line, plane, and solid relationships in space. One recitation, three laboratory hours. 2 s.h. (E)

 MR. SERRELL
- 7. Statics.—Concurrent forces, parallel forces, nonconcurrent and non-parallel forces, centroids, friction, moment of inertia. Prerequisites: courses 1 and 2, Mathematics 9 and 10. 3 s.h. (E)
- 8. Kinetics.—Translation, rotation, work, energy, and momentum. Prerequisites: course 7, and Mathematics 59. 2 s.h. (E)
- 107. Strength of Materials.—Elastic bodies under stress; flexure of simple, overhanging, fixed, and continuous beams; columns; combined stresses; etc. Three recitations, three laboratory hours. Prerequisite: course 7. 4 s.h. (E)

 Staff
- 108. Hydraulics.—Hydrostatics; flow of water through orifices, weirs, pipes, and open channels; general principles of water wheels and turbines. Prerequisite: course 7. 4 s.h. (E) Either semester.

CIVIL ENGINEERING

PROFESSORS BIRD AND HALL; ASSISTANT PROFESSOR WATSON; MR. WILLIAMS

- S10. Plane Surveying.—Use of instruments; transit, stadia, compass and plane table surveying; simple triangulation; determination of meridian by observation on Polaris; differential and profile leveling; setting grade stakes; calculation of bearings, latitudes, and departures; areas by planimeter; methods of plotting; survey and plot of sections of the campus by stadia, and transit and tape. Eight hours a day, three weeks, Summer School. Prerequisites: course 1, and Trigonometry. 3 s.h. (E)
- 11. Higher Surveying.—Care and adjustment of instruments; topographical surveying; surveys and resurveys; laying out and division of land; public land system; further calculations, omitted measurements, areas by double longitude; quantities from profiles and cross sections. Prerequisite: course 10. 2 s.h. (E)
- S110. Plane Surveying.—Similar to course 10, but especially arranged for students in forestry. Eight hours a day, three weeks, Summer School. Prerequisites: Engineering Drawing and Trigonometry. 3 s.h.

111. Higher Surveying.—For students in forestry. In addition to the ground covered in course 11, the field work includes a more thorough drill in the use of the Beaman stadia arc and the topographic abney level and trailer tape while more attention is given to the preparation of finished maps in the office work. Eight hours a day, three weeks, Summer School. Prerequisite: course 10 or 110. 3 s.h.

See the Bulletin of the Summer School.

- 112. Field Astronomy.—Determination of latitude, longitude, time, and azimuth by observation on sun and stars; use of precise transit, solar attachment, and sextant. Prerequisite; course 11. 2 s.h. (E)

 PROFESSOR BIRD
- 113-114. Curves and Earthwork—Highways.—Thorough drill in the calculation and laying out of simple, compound, and easement curves, widening of curves, vertical curves, setting slope stakes, ordinary earthwork, computations, and mass diagrams. Prerequisite: course 10. 4 s.h. (E)

Assistant Professor Watson

15. Highway Engineering.—Location, construction, and maintenance of roads and pavements; dust prevention; road economics. 3 s.h. (E)

PROFESSOR HALL

117. Highway Engineering.—Standard tests of stone, gravel, and bituminous materials. Prerequisite: course 15. 2 s.h. (E)

Assistant Professor Watson

- 118. Materials of Engineering.—Study and testing of materials other than those taken up in course 117. 2 or 3 s.h. (E) MR. WILLIAMS
- 119-120. Railroad Engineering.—Differences between highway and railway practice affecting curves and earthwork. A. R. E. A. transition curve, frogs, switches, and crossings. Preliminary and location survey of a railway of sufficient length to secure familiarity with methods of actual practice. Paper location made with estimate of cost. Construction and maintenance of track and trackwork, economics, and operating conditions affecting location. Prerequisite: course 113-114. 5 s.h. (E)

 Assistant Professor Watson

123-124. Hydraulic Engineering.-

- (a) Hydrology—Factors affecting precipitation, evaporation from land and water surfaces; relation of precipitation to run-off; estimating run-off; floods and flood flows. Stream gauging.
- (b) Public Water Supply—Quantity and quality of water required, hydraulics of wells, reservoirs, works for purification and distribution of water. Standard laboratory tests for chemical and bacteriological examination of water.
- (c) Sewerage—Sewerage systems, rainfall and storm water flow, sizes of storm and sanitary sewers, sewage disposal. Standard laboratory tests of sewage. Prerequisite: course 108. 8 s.h. (E)

 PROFESSOR HALL
- 131. Steel Structures—Stresses.—Roofs, parallel chord bridges under all types of loads, inclined top chord bridges, including subdivided panels, wind bracing. Prerequisite: course 7. 4 s.h. (E)

 Professor Bird
- 132. Steel Structures—Design.—Built beams, plate girders, tension members, compression members, tension and compression members, end posts, stringers, floor beams, pins, plates, etc. Drafting. Prerequisites: courses 107 and 131. 4 s.h. (E)

 PROFESSOR BIRD
- 133. Reinforced Concrete.—Theory and design of reinforced concrete beams, slabs, columns. Prerequisite: course 107. 3 s.h. (E) PROFESSOR BIRD

- 134. Masonry Structures.—Ordinary foundations, dams, retaining walls, arches, piers, abutments. Prerequisites: courses 107 and 133. 3 s.h. (E)
 PROFESSOR BIRD
- 137-138. Seminar.—Students are required to make reports and to talk on current engineering literature or on such other topics as may be assigned. 2 s.h. (E)

 Staff
- 143-144. Projects in Civil Engineering.—This course may be assigned by the Head of the Department to certain Seniors who have shown an aptitude for research in one distinct field of civil engineering, in which case it may be substituted for certain general civil engineering courses. 3-6 s.h. (E) Either semester.
- E.240. Indeterminate Structures.—Introductory course dealing with the application of theory of least work, deflection, and rotation to indeterminate stresses. Problems are solved analytically, graphically, and by deformeter. Prerequisites: course 131 and ability to read French or German. 3 s.h. (E)

 PROFESSOR BIRD

ELECTRICAL ENGINEERING

PROFESSOR SEELEY; ASSISTANT PROFESSOR MEIER; MESSRS. KRAYBILL AND VAIL

- 51-52. Survey of Electrical Engineering.—A general survey course covering the entire field of electrical engineering, intended to give the electrical engineering student a general preview of the subject as a whole. Required of Sophomores. Prerequisites: Freshman mathematics and concurrent physics.

 6 s.h. (E)

 Assistant Professor Meier
- 151. Theory of Direct Current Circuits.—A course consisting of lectures and recitations covering the fundamental theory of direct current circuits. Two-hour class, two-hour computation. Prerequisites: course 51-52, Physics 57-58, Mathematics 59, 60. Mathematics 131 should be taken concurrently. 3 s.h. (E)
- 152. Theory of Alternating Current Circuits.—This course covers the algebra of vectors and complex quantities, non-sinusoidal waves, polyphase circuits, harmonics, and unbalanced three-phase circuits. Two-hour class, two-hour computation. Prerequisites: course 151, Mathematics 131. 3 s.h. (E)

 MR. VAIL
- 153-154. Principles of Electrical Engineering.—An elementary course consisting of lectures, recitations, and laboratory covering the principles of direct and alternating current machinery, and their applications, designed especially for students in civil and mechanical engineering. This course includes one three-hour period in the electrical machinery laboratory per week. Prerequisite: Physics 57-58. 6 s.h. (E)

 MESSRS. KRAYBILL AND VAIL
- 155. Direct Current Machinery.—A study of the principles which underlie the design and operation of all types of direct current machinery. Prerequisites: courses 151, 161-162. 2 s.h. (E)

 Assistant Professor Meier
- 156. Electric Transportation.—Construction, operation, and uses of electric equipment in air, land, and sea transportation. Elective. Prerequisites: courses 151, 152, 161-162, or 153-154. 3 s.h. (E)

 MR. KRAYBILL
- 158. Electric-Power Stations.—A course of lectures and recitations pertaining to the design, construction, and operation of electric power stations, both steam and hydraulic. Consideration of prime movers; generating machinery: switchboards; instruments, relays, and protective devices; operation, and management; visits to neighboring plants. Prerequisites: courses 151, 152, and 187-188. 3 s.h. (E)

- 159. Electric-Power Transmission.—A course of lectures and recitations on the factors involved in the transmission of electrical energy over long distances and the use of hyperbolic functions in the solution of transmission line problems. Two-hour class, two-hour computation. Prerequisites: courses 151, 152. 3 s.h. (E)

 PROFESSOR SEELEY
- 161-162. Electrical Circuits Laboratory.—This course provides experimental verification of the theory developed in courses 151 and 152, and should be taken concurrently. Three hours per week. 2 s.h. (E)

PROFESSOR SEELEY AND MR. VAIL

163. Direct Current Machinery Laboratory.—A study of the technique of testing direct current machines and a thorough analysis of their performance. Concurrent with course 155. 1 s.h. (E)

Assistant Professor Meier and Mr. Kraybill

- 165-166. Electrical Engineering Seminar.—Seniors are required to present reports and dissertations on material appearing in current engineering literature. Juniors may participate, but without credit. Scheduled at night. 2 s.h. (E)
- 257-258. Alternating Current Machinery.—This course covers the theory underlying the design, construction, and operation of synchronous generators and motors, transformers, converters, single-phase and polyphase motors of all types. Two-hour class, three-hour laboratory. Prerequisites: courses 152, 155. 6 s.h. (E)

 Assistant Professor Meier
- 261. Communication Engineering, Audio Frequency.—An advanced course on the principles underlying voice-frequency communication covering nature of speech and sound, wave propagation over metallic circuits, filters; resistance, inductance, capacitance at audio frequencies; transmission characteristics of communication equipment. Two-hour class, three-hour laboratory. Prerequisites: courses 151, 152, Mathematics 131. 3 s.h. (E)

Professor Seeley

- 262. Communication Engineering, Radio Frequency.—An advanced course on the principles underlying radio communication, covering vacuum tubes, vacuum-tube circuits, oscillating and coupled circuits, antennae, radiation, transmission and reception. Three-hour class, three-hour laboratory. Prerequisite: course 261. 4 s.h. (E)
- 263-264. Mathematical Analysis of Electrical Circuits.—An advanced course on the detailed mathematical analysis of certain circuits used in electrical engineering with an introduction to the use of operational calculus as applied to electrical circuits. Elective. Prerequisites: courses 151, 152 and Mathematics 131. 6 s.h. (E)
- E.265-266. Projects in Electrical Engineering.—Project work may be undertaken only by those who show special aptitude, or who have had previous experience on some problem. The consent of the Chairman of the Department must be obtained before registering. Seniors only. Elective credit. 3-6 s.h.
 (E) PROFESSOR SEELEY AND STAFF

MECHANICAL ENGINEERING

PROFESSOR WILBUR; ASSISTANT PROFESSOR REED; MESSRS. CHAPMAN, SERRELL, AND THEISS

79. Constructive Processes.—Recitation course covering fundamentals of metallography and general processes in foundry, forge, and machine shop. Trips to neighboring shops are included. Prerequisite: Chemistry 2. Open only to mechanical engineering students. 3 s.h. (E)

MR. CHAPMAN

82. Kinetics-Mechanism.—Motions of particles; Newton's laws of motion and application to motions of rigid bodies, work, energy, impulse and momentum. Linkages, belts, cams, gears and trains of mechanism. Three lectures and three laboratory hours. Prerequisites: G. E. 2, G. E. 7, Mathematics 59. Corequisite: Mathematics 60. 4 s.h. (E)

Assistant Professor Reed; Messrs. Chapman and Serrell

85. Steam Engineering.—Elementary principles of boilers, engines, turbines, and auxiliaries; properties of steam, fuels, and combustion. For electrical engineering students. Prerequisite: Physics 18. 2 s.h. (E)

86. Steam Engineering.—Elementary principles of boilers, steam engines, turbines, internal combustion engines, and auxiliaries; properties of steam, fuels, and combustion. Laboratory demonstrations of principles. Two recitations, three laboratory hours. Prerequisite: Physics 18. 3 s.h. (E)

MESSRS. CHAPMAN, SERRELL, AND THEISS

170-171. Machine Design.—Applications of principles of strength of materials and constructive processes to design of riveted and welded joints, pressure vessels and machine elements, followed by design of at least one complete machine. Two lectures, three laboratory hours. Prerequisites: G. E. 107, M. E. 79, M. E. 82. 6 s.h. (E)

Assistant Professor Reed and Mr. Chapman

- 173-174. Seminar.—Students are required to make reports and to talk on current engineering literature or on such topics as may be assigned. 2 s.h. (E)
- 175-176. Projects in Mechanical Engineering.—This course may be assigned by the Chairman of the Department to certain Seniors who express a desire for such work and who have shown aptitudes for research in one distinct field of mechanical engineering. Either semester. 3 s.h. (E)

PROFESSOR WILBUR AND STAFF

- 181-182. Heat Power Engineering.—A short course in engineering thermodynamics followed by applications to power plant design. For civil and electrical engineering students. Prerequisites: M. E. 85, Mathematics 60. 6 s.h. Assistant Professor Reed (E)
- 185. Hydraulics.—Fluid statics; kinematics of fluid flow; application of fluid dynamics theory to flow through orifices, weirs, and pipes; general principles of centrifugal pumps and turbines. Prerequisite: course 82. 3 s.h. (E) PROFESSOR WILBUR AND MR. CHAPMAN
- 186. Internal Combustion Engines.—Principal cycles; fuels and fuel mixtures; effect of real mixtures on theoretical cycles; combustion; combustion and fuel injection. Thermodynamic analysis of engine performance. Modern developments in the internal combustion engine. Three recitations. Prerequisite: M. E. 187. 3 s.h. (E)

 PROFESSOR WILBUR
- 187-188. Engineering Thermodynamics.—A study of thermodynamic properties and processes of gases, vapor and gas-vapor mixtures; cycles; efficiencies and performance of steam-power plant equipment. Three recitations. Prerequisite: course 86 and Mathematics 60. 6 s.h. (E)

PROFESSOR WILBUR AND MR. THEISS

189-190. Junior Mechanical Engineering Laboratory.—Open only to mechanical engineering students. Principles of steam and fuel calorimeters; gas analysis; oil testing; measurement of steam, air, and water flow; elementary steam engine and boiler tests. Three laboratory hours first semester, six hours second semester. Prerequisites: course 86 and course 187-188 concurrently. 3 s.h. (E) Mr. Theiss

- 191. Power Plant Calculations.—Study of economic and engineering factors in developing steam power plants. Consideration of the performance of boilers, prime movers, condensers and various auxiliaries in various groupings as they affect the plant heat balance. Three recitations. Prerequisites: M. E. 187-188 or 181-182. 3 s.h. (E)

 PROPESSOR WILBUR
- 192. Industrial Engineering.—A study of the industrial growth and present tendencies of productive industries as concerns the engineer. Specific topics treated are: plant location; organization; production and cost controls, wage payment, etc. Seniors only. Three recitations. 3 s.h. (E) MR. Theiss
- 193-194. Senior Mechanical Engineering Laboratory.—Advanced engineering tests of performance and economy of steam engines, turbines, boilers and power plant accessories, internal combustion engines, heating and refrigerating equipment; heat balances and heat transfer. Six laboratory hours. Prequisite: M. E. 190. Corequisites: M. E. 191, M. E. 195, M. E. 196. 4 s.h. (E)
- 195. Heating and Air Conditioning.—Fundamentals of heating and air conditioning, determination of heat losses and gains, design of steam, hot water and warm air heating and air conditioning systems for homes, offices, and industrial buildings. Prerequisites: M. E. 188 or M. E. 182. 3 s.h. (E)

 Assistant Professor Reed
- 196. Refrigeration.—Fundamentals of refrigerating systems and design, and applications in industry. Prerequisites: M. E. 188 or M. E. 182, and M. E. 190 or M. E. 200. 2 s.h. (E)

 Assistant Professor Reed
- 198. Aeronautics.—Aerodynamic principles applied to airfoils, propellers, and the complete airplane; dynamic loading and performance calculations. Prerequisites: courses 171 and 185. 3 s.h. (E)

 MR. CHAPMAN
- 199-200. Junior Mechanical Engineering Laboratory.—Open only to electrical and civil engineering students who have elected M. E. 181-182. Work covers use of various engineering measurement apparatus, flow of air, steam and water, with economy tests on steam engines and turbines, boiler and internal combustion engines. Three laboratory hours. Prerequisite: M. E. 85. (E)

GENERAL REGULATIONS

TRINITY COLLEGE, WOMAN'S COLLEGE, AND COLLEGE OF ENGINEERING

The academic year is divided into two semesters. The first semester of the academic year 1941-42 begins September 17; the second, February 2. Commencement is held on Monday after the first Sunday in June. Commencement Day, 1941, is June 2; 1942, June 8.

TIME OF ENTRANCE

Patrons of the University and students who intend to enter the Freshman Class are reminded that the placement tests are held at the opening of the first semester in September and that this is the proper time to enter. If an applicant for admission cannot come early in the year, he should wait, except in very unusual cases, until the opening of the next semester. It is important that all students be present on the first day of the session, for those who are late incur the penalties described above in this catalogue under the topic "Admission to College" and below under the subtopic "Course Cards." Students who enter after the beginning of the semester are marked absent in the work they have missed in the courses to which they are admitted, and these absences are counted as other absences from class.

MATRICULATION, REGISTRATION, AND ENROLLMENT

All students must appear before the Committee on Admission and obtain cards for admission. Cards of admission must be presented at the Treasurer's Office at the time of matriculation. All students, both old and new, are required to matriculate at the beginning of each semester and to obtain from the Treasurer a certificate of matriculation which serves also as an enrollment card. Students matriculating in either semester at a date later than that prescribed in this catalogue shall pay to the Treasurer a penalty of \$5.00 for late registration. Students whose course cards have been approved in the spring in the manner provided below are given an opportunity during the summer to matriculate by mail for the first semester. No student without a matriculation card is admitted to any class.

COURSE CARDS

Members of the Freshman, Sophomore, and Junior classes are required to submit to the Dean, not later than the date of spring registration, cards showing their selection of courses for the following year. These cards must be approved by the Dean. After being approved, the cards must be filed for permanent record in the Dean's Office. Students in the Freshman, Sophomore, and Junior classes who do not select their courses

for the following year at the time appointed have to pay a fee of \$5.00 to the Treasurer of the University before their course cards may be approved in the fall. The same regulations apply for the second semester. Students whose course cards have been approved but who, for reasons not arising within the University, desire to make a change in the card approved have to pay to the Treasurer a fee of \$1.00 for each change made. No course may be elected later than two weeks after the opening of the semester.

If a student drops a course without permission from the Dean of the College, the grade for that course shall be recorded as "F."

If a student drops with permission a course in which he is failing at that time, the grade for that course shall be recorded as "F" unless, in the judgment of the Dean, circumstances do not justify this penalty.

EXAMINATIONS

Mid-year and final examinations are held in all subjects in January and May, respectively. The examination record combined with the record made in class constitutes the student's final grade.

REGULATIONS REGARDING GRADES

The following regulations have been adopted by the Faculty: Grades shall be reported so as to indicate one of four things:

- (1) Passed. A grade "A," "B," "C," or "D" shall indicate that a student has passed a course. The work of this group of students shall be graded according to the following system: "A": exceptional; "B": superior; "C": medium; "D": inferior.
- (2) Failed. A grade of "F" shall indicate that the student has failed in the course and that in order to receive credit for the course he shall be obliged to take the work again in class.
- (3) Incomplete. (a) A grade of "I" may be reported by the instructor if for any reason he is unable to report the final grade at the regular time. (b) All students (with incomplete grades) who have not satisfied the requirements of the departments concerned and who have not obtained a passing grade before the close of the semester following the date of the regular examination in which the "I" was incurred are regarded as having failed on the course concerned and must repeat the work in class in order to receive credit.
- (4) Absent from Final Examination. (a) The grade "X" shall indicate that the student was absent from the final examination. (b) A student absent from examination and marked "X," if his absence has been excused by the Dean of the College, may receive an examination on the payment of a fee of \$3.00 to the Treasurer of the University. The department concerned shall arrange for the examination in cases where absences are incurred and excused and the grade reported in these cases shall be that earned by the student. (c) All students (with "X" grades) who have not satisfied the requirements of the department concerned and

who have not obtained a passing grade before the close of the semester following the date of the regular examination in which the "X" was incurred, are regarded as having failed on the course concerned and must repeat the work in class in order to receive credit. (d) If a student's absence from an examination is not excused by the Dean of the College, his grade for the course concerned shall be recorded as "F."

EXPLANATION OF QUALITY-POINT SYSTEM

The requirements for the degree are reckoned not only in semester-hours but also in quality-points. Quality-points are the points earned by a student according to his grades, for each semester-hour of credit. The grade "A" gives three quality-points for each semester-hour of credit; the grade "B" two quality-points; the grade "C" one quality-point. The grade "D" carries no credit in quality-points. For the grade "F" one quality-point is deducted for each semester-hour of failure. Credit for 122 quality-points, exclusive of those earned in physical education, is required for the degree of Bachelor of Arts or Bachelor of Science in all groups.

NUMBER OF HOURS OF CLASSWORK

No undergraduate student is allowed to take less than fourteen hours of classwork a week without special permission of the Dean.

No undergraduate student may take more than seventeen semesterhours of work in one semester, if he fails to make eighteen quality-points on the work of the preceding semester.

CLASS STANDING

For a student to rank as a Sophomore, he must have to his credit twenty-four semester-hours with an average grade of "C"; as a Junior, fifty-six semester-hours with an average grade of "C"; as a Senior, ninety semester-hours, with an average grade of "C."

SENIOR WORK

A student of the Senior Class irrespective of his average grade in preceding years, must, in order to be eligible for graduation, complete his work of the Senior year with an average grade of "C" or better.

EXCLUSION FOR FAILURE

A student of the Freshman Class entering college for the first time is not permitted to remain in the University in the second semester unless he passes as much as six semester-hours of the work of the first semester; any other student is not permitted to remain in the University in the second semester unless he passes as much as nine semester-hours of work in the first semester.

A student of the Freshman Class is not permitted to re-enter in September, nor to enter Summer School, if he did not pass at least six

semester-hours of work in the second semester of the previous year and a total of eighteen semester-hours of work for the entire year; any other student is not permitted to re-enter in September, nor to enter the Summer School, if he did not pass at least nine semester-hours of work in the second semester of the previous year and a total of eighteen semester-hours of work for the entire year.

STUDENTS TRANSFERRING FROM OTHER INSTITUTIONS

Students whose advanced credits from another institution are accepted by the University will be given an average grade of "C" on the semester-hours with which they are credited, provided their grades warrant it.

DEFICIENCIES IN COMPOSITION

The following regulations have been adopted by the Faculty:

- 1. Any Freshman who is found by the English Department to be unable to handle satisfactorily the work of composition in English 1-2 is required to take special work until he is able to do satisfactorily the regular work of English 1-2.
- 2. No student who has failed in English 1-2 or 53 is permitted to become a special student without continuing his work in composition until he has made up his deficiency in this work.
- 3. Whenever the work of a student in any subject is satisfactory to an instructor except for gross errors in English, the instructor concerned may hand in a provisional grade only. This grade may not be recorded in the college files until the student shall have improved his work in composition to the satisfaction of the English Department. A list of such provisional grades, along with evidence of deficiencies, shall be furnished the English Department each term by the officers in charge of the grades, and a report shall be made by this department when the deficiencies shall have been removed.
- 4. All instructors are requested to advise their students each semester concerning these regulations.

CANDIDATES FOR ACADEMIC DEGREES

- 1. A tentative list of all candidates for the Bachelor's degree shall be prepared under the supervision of the Dean of the College as early in the college year as possible, shall be read by him to the Faculty at its first regular meeting in October, shall be furnished in copy to each department of instruction for information and reference, and also shall be posted in copy on the official bulletin board of the University for the information of the students concerned.
- 2. Copies of a second such tentative list likewise shall be prepared, read, and distributed by April 15.
- 3. A final list of all candidates for the degree shall be read by the Dean to the Faculty at its first regular meeting in May and shall be adopted by the Faculty as the final list. After the adoption of this list no name may be added to it.

A student who completes in a summer session the work required by the University for the Bachelor's degree will be granted the degree at the end of that session.

THE DEAN'S LIST

Students of the Junior and Senior classes who, at the mid-year or final examinations, have attained in Duke University an average of "B" in their courses of the half-year just closed and who have not received a grade of "F" in any course may be placed on the Dean's List for the succeeding half-year. The privilege of the Dean's List is also extended to eligible members of the Sophomore Class during their second semester.

The name of a student may be withdrawn from the List at any time by the Dean, if the student fails to maintain a satisfactory standard of

scholarship and conduct.

Students whose names are on the Dean's List will not be subject to the general regulations of the University governing class attendance. This privilege, however, may not be exercised in courses primarily open to Freshmen. Furthermore, such students are required to be present at the meeting of classes immediately before and after any holiday, unless they are excused by the Dean of the College.

If for any reason a student is removed from the Dean's List during, or at the close of, the second semester of his Junior year, his name may not be reinstated on the List.

CLASS ATTENDANCE AND ABSENCES

Regular and punctual attendance in classwork is required of all students not on the Dean's List.

The purpose of the following rules is to provide for those absences made necessary by illness and all other emergencies. Students should reserve these absences for such occasions.

If a student incurs during a semester more than five absences from a three-hours course of study he is carrying (the number of absences allowed in any other course being proportionate to the credit hours the course carries), he shall suffer the loss of quality-points as follows: for the first absence in excess of the number allowed, one; for the second, two; for each absence thereafter, three. Absences due to prolonged illness or to authorized representation of the University in a student activity are excused without effect on grades. However, if other absences, unless unavoidable, are incurred after such excused absences, they will cause the loss of quality-points in accordance with the penalty as defined above.

If the total number of a student's absence in all courses for which he is registered during a single semester amounts to one more than the total number allowed, except under the provisions of the preceding paragraph, his total credit for that semester is reduced by one hour and for each additional five absences a reduction of one hour of credit is made.

As soon as the number of absences in a single semester course, exclusive of the absences due to prolonged illness and authorized representa-

tion of the University, exceeds three times the number of credit hours the course carries, registration in that course is cancelled.

A student is counted absent from meetings of a class held before he matriculates at the beginning of a semester.

All consecutive absences from the University, before or after any holiday, shall be counted as triple absences.

In addition, a student for excess absences may, at the discretion of the Dean, be put on probation or dropped from the College.

Weekly reports of all absences of students from class are made by each instructor and are filed in the office of the Dean. A permanent record of the attendance of each student is kept and becomes a part of his general college record.

The instructor has no authority to excuse a student from class attendance, and it is his duty to report all absences, for whatever cause, to the Dean's Office at the end of each week.

ASSEMBLY AND CLASS MEETINGS

TRINITY COLLEGE AND COLLEGE OF ENGINEERING

There shall be held on the first Thursday of each month of the college year in Page Auditorium, from 12:30 p.m. to 12:50 p.m., an assembly of all Seniors, Juniors, Sophomores, and Advanced Freshmen of Trinity College, and at this period of the day separate meetings of these four groups on the second, third, and fourth Mondays, Wednesdays, or Thursdays of each month. There shall be a class meeting of the Freshman Class on each Saturday of every month at the time named above. The Engineering assemblies are held on the first Wednesday of each month from 12:30 p.m. to 12:50 p.m.

Attendance upon all of these meetings is compulsory for all students involved. Any student incurring in a semester a total of more than four absences from them automatically excludes himself from college.

WOMAN'S COLLEGE

A weekly assembly is held for all students in the Woman's College, and an additional assembly for all Freshmen and transfer Sophomores. A meeting of the Freshman Class is held each week and other classes meet at appointed times.

Attendance upon all of these meetings is compulsory for all students involved.

SCHOLASTIC REGULATIONS FOR ATHLETIC AND OTHER ORGANIZATIONS

The following regulations have been adopted by the Faculty:

1. Any student who receives less than a passing grade on more than six hours of his required work of the preceding term shall be ineligible to represent the University in any athletic contest, concert, or other public event.

2. Members of athletic teams or other student groups engaging in public representation of the University are expected to be carrying satisfactorily their current work. A student may be barred from participation in such representation if, in the opinion of the Dean, he is not doing satisfactorily his current work.

Duke University is a member of the Southern (Athletic) Conference and observes the following scholastic requirement of that Conference:

"The scholastic requirement for eligibility to participate in varsity intercollegiate sports shall be for 1941-42 the passing by the applicant of a minimum of twenty-one semester-hours or thirty quarter-hours of the work of his immediately preceding year in college; thereafter the passing of twenty-four semester-hours or thirty-six quarter-hours of the said work; with the proviso that graduate students and students in the schools of law and medicine become scholastically eligible on the certificate of the deans of their schools."

THE ATHLETIC COUNCIL

The Board of Trustees, at its regular annual meeting in June, 1907, created an Athletic Council to be composed of eleven members appointed annually: three from the Faculty, to be appointed by the President of the University; four from the alumni, elected by the Alumni Association; and four from the undergraduates, one from each of the four classes, elected by the members of each class.

The three members of the Athletic Committee of the Faculty are the Faculty representatives in the Athletic Council. This committee alone has the responsibility of enforcing the scholastic and athletic requirements of the University for student participation in intercollegiate sports. The athletic eligibility rules are those of the Southern Conference; the scholar-ship requirements are printed elsewhere in this catalogue.

The Executive Committee of the Athletic Council is composed of the Chairman of the Faculty Committee on Athletics, and one other Faculty member and one alumni member of the Council. The Athletic Council on recommendations of its Executive Committee arranges athletic schedules, awards insignia of merit earned by members of athletic teams, and strives to promote among students of the University a proper and helpful athletic spirit; to encourage good fellowship in such sports both within the student body and toward student bodies of other educational institutions; through athletic sports to help cultivate a high sense of honor, earnest, unselfish effort, and manly conduct. The Executive Committee of the Council recommends to the President of the University persons to serve as Graduate Manager of Athletics and as coaches in the various sports. However, the election of such persons rests solely with the Trustees of the University or the Executive Committee of the University, on recommendation of the President of the University.

All funds arising from athletics are handled entirely by the Treasurer of the University. An audit of the receipts and disbursements of these funds is made annually by the official auditors of the University.

CONDUCT OF STUDENTS

The University expects of its students loyal and hearty cooperation in developing and maintaining high standards of conduct as well as of scholarship. The University therefore reserves the right, and matriculation by the student is a concession of this right, to ask the withdrawal of any student whose conduct at any time is not satisfactory to the University, even though no specific charge be made against the student.

ADMINISTRATION OF DISCIPLINE

General oversight of the conduct of students and the administering of discipline are vested in the Dean of the University. The duty of immediate supervision, guidance, and control of the students in each college is entrusted to the Dean of that College. However, through the expressed willingness of the students at the University to assume the responsibility of maintaining high standards of morals and honor at all times the student body has properly become in a great degree self-governing in this respect. Two councils, one of men and the other of women, each composed of carefully chosen and duly elected representatives of the student body, exercise the authority granted the students to investigate all cases of misconduct, as well as all other cases of violation of proper student standards and traditions and to make recommendations of penalties based on their findings. Occasions seldom occur where such recommendations are not accepted and enforced.

The student councils have been of great help to the administrative authorities of the University. They not merely exercise police authority for restraining and punishing evildoers but also exert a guiding and stimulating influence for the promotion of high ideals of conduct and student relationships.

REGULATIONS REGARDING PUBLIC LECTURES AND OTHER PUBLIC OCCASIONS

All public lectures or addresses and other public events that are given under the auspices of the University or of any organization in any way connected with the University are under the supervision of the Faculty Council on Public Lectures. All dates and programs must be approved by this council except in instances where such occasions have been placed under the supervision of the Director of Public Relations.

- (1) The Council on Public Lectures shall provide each year an official calendar.
- (2) All public occasions held on either the East or West University Campus are listed for the Weekly Calendar of Duke University in the office of the Department of Public Relations and Alumni Affairs in the

West Campus Union. This calendar appears each Saturday, and such

notices must be received by 10:00 A.M. on the Friday preceding.

Social or other events held in the West Campus Union must be listed in the office of the Director of Public Relations and Alumni Affairs, and permission must be secured for such social use of the public rooms in the building.

REPORTS

Reports of the class attendance records and of the proficiency of each student in studies are sent to his parents or guardians after the examinations at the end of each semester. For Freshmen, midsemester reports are made.

HEALTH AND PHYSICAL EDUCATION

The program of Health and Physical Education in Duke University has four distinct phases, as follows:

- 1. Student Health.
- 2. Physical Instruction.
- 3. Intramural Sports.
- 4. Intercollegiate Athletics.

MEDICAL CARE

With the exceptions noted below, full medical and surgical care is furnished to all regularly matriculated students of the University, during both the college year and the summer quarter, at no additional cost to them beyond the medical fee of \$5.00 payable each semester or the medical fee charged each student of the summer quarter. This service is under the direction of the University Physician with the co-operation of the Staffs of the Infirmaries (one on each campus) and the University Hospital. It includes hospitalization (limited to thirty days), medical and surgical care, drugs, dressings, X-ray work, and ward, but not special, nursing. A charge for board is made at the same rate as in the University dining halls, and student meal tickets for these halls are accepted in payment of this board. Refraction of eyes, treatment of teeth and of all chronic and pre-existing conditions, such as diseased tonsils, hernias, elective surgery, chronic skin conditions, endocrine disturbances, etc., or accidents or illnesses occurring during vacations or while off the campus, are not included in this service. The cost of any necessary braces and orthopaedic appliances, as well as of special nursing, must be borne by the student.

No illness is treated in dormitory or other rooms occupied by students. Students needing treatment for minor medical or surgical conditions have the attention of the Director at his two daily visits to the Infirmaries, which have day and night nurses on duty. Students developing serious conditions are promptly transferred from the Infirmaries to the University Hospital, where they come under the care of the Staff of the

Hospital.

A questionnaire is sent out from the office of the Director of Student Health in the spring to all prospective students, advising certain medical and surgical care by their home physician or surgeon, such as the giving of typhoid or smallpox vaccine, removal of diseased tonsils, correction of errors of refraction, repair of a hernia, or removal of a chronic appendix. Important time is frequently lost in correcting these conditions after entrance into college, and the cost for this work must be borne by the student.

When the student comes to the University, he is given a careful physical examination. Any physical defects are recorded along with the record of the questionnaire from the family physician. All students are requested to be successfully vaccinated against smallpox before admission to the University. It is urgently advised that they take typhoid vaccine if they have not done so within three years.

PHYSICAL EDUCATION AND INTERCOLLEGIATE SPORTS TRINITY COLLEGE AND THE COLLEGE OF ENGINEERING

The University requires all students to engage in some type of physical activity for two years or four full semesters. This work consists of participation in natural, practical, physical activity for at least three one-hour periods each week. A credit of six hours, with an average grade of "C," is required in physical education for graduation. The aims of this work are to improve body control and strength through big muscle activities, to stimulate the development of mental and physical alertness, to establish habits of regular exercise, and to give training and experience in various kinds of recreational sports that will be indulged in after the student graduates from the University.

Intramural sports are fostered and promoted in all lines of athletic activity. Meets, tournaments, and leagues are seasonally organized in the different sports. All students in the University are eligible to enjoy the intramural privileges, provided they comply with the intramural rulings. Participation in these activities is entirely voluntarily, but is very popular because it provides an opportunity for every man to enter into competition and recreation in those sports which he enjoys most.

The intercollegiate athletic program is controlled entirely by the University and consists of the organization and training of representative Freshman and varsity teams in the following sports: football, basketball, baseball, track, cross country, swimming, lacrosse, wrestling, tennis, and golf.

WOMAN'S COLLEGE

The Physical Education Department aims to give all students an appreciation of the value of activity for general physical well-being, skill in one or more activities which can be enjoyed as recreation after college, a well-developed and well-coordinated body, and a knowledge of good posture and efficient handling of the body in everyday activities.

To this end, students are allowed to choose from a large number of activities including outdoor individual, dual, and team sports, several

types of dancing, swimming, and gymnastics. All Freshmen are expected to take body mechanics in the winter, and each student must elect a rhythm, one team sport, and two individual or dual sports sometime during the three years of required physical education.

A medical and physical examination is required of each student upon entrance, and follow-up examinations are used as a basis for determining the type of physical exercise a student should take and any corrective measures needed. Special remedial and corrective classes as well as rest periods are provided for students who cannot engage in the usual sports and activities.

In addition to the required work in physical education the Dance Club, the Swimming Club, and the Woman's Athletic Association give opportunities for all students to take part in the types of intramural activities most interesting to them. The swimming pool, tennis courts, and other athletic equipment are available to all students for use at specified times.

PHYSICAL EDUCATION AND RECREATION FEES

In order to meet certain hygienic aspects of physical education and intramural athletics the University has made available for all students, in addition to facilities for physical activity and recreation, the following equipment and services:

- 1. (a) Men. A regulation uniform: shirt, trunks, supporter, socks, sweat clothes, and towel.
 - (b) Women. Gym suit, dance costume, bathing suit, warm-up suit.
- 2. Provision for locker and handling of uniform.
- 3. The laundering of uniform and towel as needed.

The privileges and services listed above are available to all students upon payment of the Recreation Facilities and Equipment Fee, so long as they comply with rules and regulations established for the care and handling of same. Students enrolled in required physical education courses have been assessed an additional fee (see Laboratory and Materials Fees, pages 156 and 157). This fee is necessary in order to make more equitable the maintenance of locker system and usage of uniform.

PUBLICATIONS COUNCIL

The student publications of the University are under the control of a council that was established in 1924 and reorganized by the Executive Committee of the University in 1935, and is constituted as follows: three (3) members from the University Staff appointed by the President of the University; two (2) members from the alumni appointed by the President of the University; six (6) men from the Junior and Senior classes, elected by the students in Trinity College; four (4) women from the Junior and Senior classes, elected by the students in the Woman's College; and three (3) editors and three (3) managers of student publications, ex officio members without any voting power. With the advice of the Council, the President of the University appoints each year for each pub-

lication an advisory committee of three (3) members from the Staff of the University.

No student publication can be started at the University without the approval of the Council.

RELIGIOUS EXERCISES

Chapel exercises are conducted on Tuesday and Friday throughout the academic year at 12:30 p.m. on the campus for men. Preaching services are held on Sunday at 11:00 a.m. in the University Chapel. Organ recitals are given on Sunday afternoons. In the summer carillon and organ recitals are given twice a week.

FEES AND EXPENSES

The following tables show the general fees and charges collected from all students and the special fees collected from those taking courses in the sciences and in history. All fees for each semester are due and payable, unless otherwise specified, at the time of registration at the beginning of that semester and no student is admitted to classes until arrangements have been made with the Treasurer of the University for the settlement of fees.

GENERAL FEES

Matriculation, per semester\$	
Tuition, per semester	00.00
Athletic Fee, admitting students to all athletic contests held on the University grounds, per semester. *Recreation Facilities and Equipment Fee, per semester. Damage Fee, payable annually at the time of first registration Medical Fee, per semester. Library Fee, per semester. Commencement Fee, payable annually at the beginning of the second semester.	5.00 1.00 1.00 5.00 5.00
Publication Fee:	3.00
First semester Second semester	2.50 3.00
Diploma Fee, payable by candidates for degrees at the beginning of the second semester, refunded if the diploma is not awarded	5.00
LABORATORY AND MATERIALS FEES	
Botany 1, 2, 52, 55, 101, 104, 202, 204, 221, 255, and 256. \$ Botany 51, 103, 151, 156, 203, 216, and 252. Forest Botany 224 and 253. **Chemistry 1, 2, 61, 70, 131, 132, 153, 154, 215, 216, 261, and 262. Chemistry 151, 152, 241, 242, 253, and 254. Education 1, 58, 68, and 101. Education 112, 115, 116, 122, and 131. Education 208 (for testing materials in lieu of text). Engineering	2.50 5.00 2.50 7.00 8.50 1.00 7.50 2.50
Civil S10 and S110—See Summer School Bulletin. Civil 11, 107, 111, 112, 113, 114, 117, 118, 119, 123, 124, 143, 144, and 240 Electrical 153, 154, 161, 162, 163, 258, 261, 262. Mechanical 86, 189, 190, 193, 194, 199, and 200. Forest Botany 224 and 253. Forestry 224, 253, 254, 259, 260, 264, 357a, and 358a. Forestry 261, 351, 352, 354, 357b, 358b. Geology 51, 52, 101, 151, and 152. Geology 102 Field trip in Geology 51-52 and 101-102 at cost.	2.00 2.00 2.50 2.50 2.50 2.50 2.50 2.50

^{*} See Physical Education and Intercollegiate Sports, pages 153-154.

** When the laboratory in Chemistry 153-154 supplements that of another course and is taken simultaneously with such course no fee is charged with Chemistry 153-154.

History 91 and 92	3.00
No texts are required in these courses, but a fee of \$3.00 is charged,	
and books are placed in the Library for the use of those taking the	
courses. This fee is payable at the beginning of the semester and is	
collected through the office of the Treasurer of the University.	
*Physical Education, per semester, for men	1.50
*Physical Education, per semester, for women	1.00
Physics 1 and 2.	2.00
Physics 57, 58, 61, 62, 103, 104, 108, 215, 216, 217, 218, and 219	3.00
Physics 51, 52, and 106	5.00
Zoology 1, 2, 92, 161, 204, 219, 220, 222, 274, 306, 324, 343, 353, and 354.	3.00
Zoology 1, 2, 92, 101, 204, 219, 220, 222, 274, 300, 324, 343, 333, and 334	5.00

TEACHERS TAKING COLLEGE COURSES

Teachers in near-by schools, taking one or two courses, are required to pay a registration fee of \$5.00 each semester and a tuition fee of \$3.00 per semester-hour of credit in addition to any regular laboratory fee or other fees collected from those students taking the courses.

ESTIMATED EXPENSES FOR AN ACADEMIC YEAR

The necessary expenses of a student are moderate; the University dormitories provide thoroughly comfortable and wholesome living conditions at a minimum of cost, while all charges made by the University have been kept low. Incidental expenses depend naturally upon the tastes and habits of the individual, but the actual necessary college expenses for one year, including board, room-rent, and such University fees as tuition, matriculation, commencement, library, damage, and medical, vary from \$574.50 to \$639.50. Books and laundry are not included in these figures.

LIVING ACCOMMODATIONS FOR MEN

There are three groups of resident houses designated as Craven, Crowell, and Kilgo Quadrangles on the West Campus. The rooms are single, double, or arranged in suites of two rooms for four students. There are thirty-one houses within the three groups designated by the letters of the alphabet.

There are also two dormitories on the East Campus used for men—Southgate and Epworth Halls. All these rooms are equipped for two persons. Students in the College of Engineering are expected to live in either Southgate or Epworth, which are located near the Engineering College. Room reservation fees and applications for room assignments should be addressed to the Director in Business Division, East Campus.

^{*} See Physical Education and Intercollegiate Sports, pages 153-154.

Kilgo Quadrangle (eight houses) has been set aside as a Freshman Dormitory. A portion of Southgate Hall has also been reserved for Freshmen studying engineering. All Freshmen, except those living at home with their parents, are required to room in one of these dormitories.

Rooms are reserved only for applicants who have been officially accepted by the University, upon application to the Director in the Business Division, Duke Station, Durham, North Carolina. A reservation fee of \$25.00 between April 15 and May 15 at the office of the Director in the is deducted from the room charges at the time of registration for the fall semester. An applicant who is accepted and has a room reserved is not entitled to a refund of the reservation fee unless the request is made on or before August 1.

A resident student in order to retain his room for the succeeding year is requested to make application accompanied by a reservation fee of \$25.00 between April 15 and May 15 at the office of the Director in the Business Division. All rooms which have not been reserved on or before May 15 will be considered vacant for the succeeding year and will be reserved in the order in which applications are made.

Rooms are rented for no shorter period than one semester, or in the case of a medical student, one quarter, unless by special arrangement with the Director in the Business Division. A period of occupancy other than a semester or quarter and without special arrangement will be charged at a minimum rate of \$1.00 each day.

The exchange of rooms may be arranged for at the Housing Bureau within fifteen (15) days after the official opening of the semester or quarter of the school term. A charge of two dollars (\$2.00) will be made for the exchange of rooms after the periods allowed for such exchange. Persons exchanging rooms without the approval of the Housing Bureau will be subject to charges for both rooms.

The authorities of Duke University do not assume the responsibility of selecting and assigning roommates, though they will gladly render any assistance possible.

DORMITORY REGULATIONS

Duke University is particularly eager that its students shall have the best dormitory life to be found in any institution, and to encourage this has provided buildings and equipment which are not surpassed. The Institution asks and believes that in return each student will respond to this effort by arranging his personal belongings in an orderly manner, and by caring for the buildings and furniture as he would do in the home of a friend. The following regulations are offered as a guide and a reminder that care is desired.

1. The student will be held responsible for any damage to the room or furnishings during the rental period, and will pay for all damages caused by his neglect, misuse or abuse of any part of the University property. Inspections will be made throughout the college year to observe the condition of the rooms and to advise students concerning the care of rooms, if necessary.

2. Maids will prepare the rooms daily except Sunday, the service beginning promptly at 8:00 o'clock A.M. and ceasing at 1:00 o'clock P.M., thereby giving the student complete use of his room during the afternoon.

3. University furniture or furnishings must not be removed from the room

in which they have been placed by the University.

4. Electric wiring, door locks, window screens, steam or water lines should not be changed or added, since the University supervises and makes such changes as are necessary and advisable.

5. Pictures, pennants, clippings should be hung from the picture moulding

and not tacked or pasted on walls or woodwork.

6. Each student is expected to supply necessary sheets, blankets, pillows, rugs and curtains. Furniture, beds and mattresses (39" x 74"), tables, chairs, dressers, mirrors, and window shades are furnished by the University.

7. All trunks and heavy luggage will be stored in the trunk rooms. Janitors will remove the trunks from the hallways to the storage rooms when they are

unpacked.

- 8. The exchange of rooms or keys should be arranged for at the office. Any exchanges made otherwise will subject the participant to charges for both
- 9. The use or possession of intoxicating liquors, wines or beer, and gambling in any manner in any of the buildings or on the grounds of Duke University are forbidden.

10. Animals shall not be kept in the dormitories.

11. Women are permitted in the dormitories only when accompanied by the

University Hostess.

12. The use of dormitory rooms as a sales office or storeroom, or the solicitation for sales or gifts within the buildings or on the grounds is prohibited except by appointees of the University.

LIVING ACCOMMODATIONS FOR WOMEN

The Woman's College campus, known as the East Campus, is situated about a mile and a quarter from the West Campus, with a private road connecting the two.

Houses—The seven residence houses on the East Campus are Alspaugh, Aycock, Bassett, Joseph G. Brown, Giles, Jarvis, and Pegram. A plan of the houses will be sent upon request to the Director in the Business Division, College Station, Durham, North Carolina. Each house has a resident head of house and paging system for announcing visitors.

Rooms—All questions concerning rooms should be addressed to the Director in the Business Division. The students' rooms are single, double, or arranged in suites of two rooms for two students.

Room Furnishings-Rooms are supplied with all necessary furniture. Curtains, towels, sheets, pillow-slips, blankets, and heavy bed covering, etc., are furnished by the students. Sash curtains of a standard type are required and can be bought at the College Store. Draperies, small scatter rugs, and study lamps can be brought from home or bought at reasonable prices from the College Store or in the city. Large rugs and heavy overstuffed furniture may not be brought into the dormitories.

Room Rent—

Single room, per student, per semester, Giles, Alspaugh, Pegram,
Bassett, Brown and Jarvis Houses\$87.50
Double room, per student, per semester, Giles, Alspaugh, Pegram,
Bassett, Brown and Jarvis Houses
Single room, per student, per semester, Aycock House 75.00
Double room, per student, per semester, Aycock House 50.00

Room Reservation—A room reservation fee of \$25.00 is required before any room reservation can be made for new or returning students. This fee is deducted from the room charges at the time of registration for the fall semester. Applicants for admission are requested not to send the room reservation fee until notified of acceptance. Those who make application and are accepted will not be entitled to have the reservation fee refunded unless the request is made on or before July 15. Those who are accepted after July 15 have ten days in which to pay their room reservation fee. This fee is not refundable.

No room assignments will be made for new students until they have been officially accepted by the Council on Admissions. The room reservation fee of \$25.00 is payable immediately upon notification of acceptance by the Council on Admissions. If room reservation fee has not been received within ten days after notification of acceptance by the Council on Admissions, the admission will be cancelled.

Details relative to the signing of rooms by resident students will be posted on dormitory bulletin boards about April 15. Resident students have the right to retain their rooms for ensuing year or to sign for new ones in the order of their class beginning with the Seniors. The new students are then assigned the remaining rooms, and in so far as possible, the type of room which they prefer. The University is responsible for the fall senester only for securing roommates for new students desiring double rooms. After a student has been a resident for one semester, the responsibility for securing and keeping a roommate is transferred to the student. If a student occupying a double room does not have a roommate by the date posted, approximately two weeks after the beginning of the semester, she will be required to pay double rent. The University is glad to cooperate in assisting the student to find a roommate.

When a room is once engaged by a student no change will be permitted except with the consent of the Director in the Business Division. Leaving one room and occupying another without permission is strictly against the rule and will render the offender liable to a charge for both rooms for the entire semester. No occupant is permitted to rent or sublet a room to another occupant. Rooms are rented for no shorter period than one semester. When a student leaves school before the end of the semester, the charge is \$1.00 a day unless the total charge on this basis is in excess of the room rent for the semester. All undergraduates who are not residents of Durham are required to live in the dormitories unless they are living with their parents or near-relatives. An undergraduate women who is over twenty-one years of age and who wishes to live in the city may make special arrangements with the Dean. Provision is made for graduate students to live on the campus.

No visitors are permitted in any sections of the dormitories which are occupied by women except by permission of the office of the Head of the House. Merchandising, solicitation, or advertising of any type is strictly forbidden within the dormitories.

BOARDING ACCOMMODATIONS

Trinity College, West Campus.—Beginning with the academic year 1930-31 the University opened its dining hall in the Union on the West Campus with accommodations sufficient to provide in a superior way for all resident men students. Charges for board will not exceed \$25.00 per month.

The Union is the logical center of student activities for men, and it will be found desirable for male students to board in its supervised halls. In the Union are located the University Post Office, the University Store, the University Barbershop, and all publication staff offices.

In addition to the Union dining halls, the Coffee Shop is operated for the convenience of students and visitors.

Woman's College, East Campus.—The dining halls of the Woman's College are situated in the Union, the student center, on the East Campus. No resident woman is permitted to board elsewhere than at this Union. Board is \$112.50 per semester.

Because of the large number of those served in the Union dining halls, it is not possible to arrange special diets for individual students. Special diet for the sick is served in the Infirmary.

The Union includes a Faculty dining room, a lounge, and other rooms for various student activities.

LAWS REGARDING PAYMENTS

The Executive Committee of Duke University has enacted the following regulations which govern the payment of all fees due the University:

- 1. The President and the Treasurer of the University have no authority to suspend or in any way alter these regulations.
 - 2. Matriculation and tuition fees are never refunded.
- 3. Any student who has failed to pay his bills on the dates advertised in the catalogue is denied the right to attend classes until his account is settled in full.
- 4. No student is considered by the Faculty as an applicant for graduation until he has settled with the Treasurer for all of his indebtedness to the University.
- 5. No student who has not settled all his bills with the Treasurer of the University is allowed to stand the mid-year or final examinations of the academic year.

When a student wishes his bills sent to his parents or guardian, the student or his parent or guardian must so notify the Treasurer of the University in writing in due time, but this in no way releases the student from liability to established penalties, if his bills are not paid on the dates advertised.

TRANSCRIPTS

Students desiring to transfer from Duke University to another institution are entitled to one transcript of their record. A charge of \$1.00 is made for each additional copy.

SCHOLARSHIPS, LOANS, AND EMPLOYMENT AID

Duke University annually awards available scholarships, administers loan funds, and supervises student employment through a committee of the Faculty for deserving undergraduates of Trinity College, the Woman's College and the College of Engineering.

SCHOLARSHIPS

Scholarships intended to aid needy and deserving students have been established from time to time by persons deeply interested both in Duke University and in the members of its student body. Such scholarships are supported by the income from invested funds. All scholarship endowments are held in trust and are kept separate and distinct from other holdings of the University. All income is faithfully applied in accordance with the terms of the gift or bequest.

In addition, a limited number of scholarships, notably the honorary awards in recognition of scholastic merit and strength of character, are

financed through current funds of the University.

Scholarships are awarded annually by a committee of the Faculty appointed by the President of the University. In some cases donors have specified certain limitations and conditions. These are faithfully followed, but in all cases final award is made by the faculty committee.

As a general rule, scholarships cover tuition charges only, though in some instances provision has been made for larger amounts. Any student enrolled in the University or any prospective student may apply for a scholarship. No application, however, may be made formally by a prospective student until application for admission has been made, all necessary credentials presented, and notification of acceptance given. The number of scholarships available is small in comparison with the number of undergraduate students enrolled in the University, and as a result the committee in making the awards attempts in so far as possible to limit scholarship aid to cases where the need is imperative. Before applying for such aid, a student should first have exhausted all means of aid from parents, kinsfolk, interested friends and commercial or civic agencies in his home locality.

All applications for scholarship aid should be made to the Scholarship Committee, Secretary's Office, Duke University.

The list of scholarships available for undergraduates appears in the General Catalogue of the University.

LOAN FUNDS

A number of loan funds have been established for the benefit of students of Duke University. The most important and largest of these is the Angier B. Duke Memorial Student Loan Fund, which is administered through an advisory committee of officers of the University. Only the earnings of this fund are used for loans, and the amount available annually depends upon the income from investments and on the amount repaid on loans previously made to students.

The same committee of officers administers the other endowed loan

funds of the University.

Although a considerable sum accrues annually for loans to students, it is not sufficient to provide for all calls for assistance. The committee in approving loans selects those students who from the standpoint of character, scholastic attainment, personality, and degree of financial need are most deserving of consideration.

The following regulations govern the making of all student loans:

1. No loan shall be made to a student who violates any of the regulations of the University or whose class work is not satisfactory to the Faculty.

2. As a general policy a student is not potentially eligible for loan assistance until he has been in residence at least one semester and until those responsible for the administration of loan funds have had an opportunity to acquaint themselves with the worthiness and the need involved in any particular case.

3. Loans will be made only to students who are taking approved courses of study that lead to a degree, and all loans must be arranged

for not later than one week after the beginning of a semester.

4. Every applicant for a loan must present with the application such security as the President of the University may approve, and no money shall be advanced before a note with approved security is in the hands of the Treasurer of the University.

5. No loan will be made to defray any other expenses than those incurred during the academic year for tuition, for matriculation, or for

room-rent.

6. Interest at a rate of 6 per cent annually shall be charged for all

loans of money, and the interest must be paid annually.

7. Applications for loans should be made to the Loan Committee, Secretary's Office, Duke University Station. A formal application for loan assistance may be made only on blanks furnished in the Secretary's Office at the time of registration. The granting or withholding of a loan is a matter entirely within the discretion of the Loan Committee. A student is expected to use all other possible means of securing financial assistance before applying for aid from the Loan Fund.

EMPLOYMENT

A number of students each year secure part-time employment on the University campus and in the city. Those in need of such employment may apply to the Secretary of the Committee on Student Aid, Secretary's Office, Duke University. No definite number of such places can be promised. Available places will be assigned in accordance with the merit and the need of the applicants.

HONORS AND PRIZES

To be eligible for Honors a student must earn during the year a credit of not less than thirty semester-hours. Students in the Freshman, Sophomore, and Junior classes who earn an average of at least two and one-half quality-points per semester-hour are given Honors. All semester-hours on which a student receives a grade are counted in the determination of Honors.

The degree of Bachelor of Arts or of Bachelor of Science with distinction is conferred under the following rules:

Students who have completed a minimum of ninety semester-hours in Duke University are eligible for general Honors at graduation. Those who earn an average of at least two and one-half quality-points per semester-hour are recommended for a degree magna cum laude. Those who earn an average of at least two and three-fourths quality-points per semester-hour are recommended for a degree summa cum laude. All semester-hours taken in Duke University on which a student receives a grade are counted in the determination of Honors.

MEDALS AND PRIZES

The Wiley Gray Medal was established by the late Robert T. Gray, Esq., of Raleigh, North Carolina, to be awarded annually in memory of his brother. It is given for the graduating oration that shall be, in the opinion of a committee, the best, with respect to both declamation and composition.

The Debate Council authorizes the awarding of medals to members of the graduating class who have represented the University in at least two intercollegiate debates. The medals are given by the local chapter of the

Tau Kappa Alpha Fraternity.

The Southern History Prize is awarded each year for the best essay dealing with a subject relating to Southern history. The prize is \$25 in cash donated by an anonymous friend of the University. The competition for the prize is conducted according to the regulations adopted by the

Trinity College Historical Society.

The Robert E. Lee Prize is the gift of the Reverend A. W. Plyler, of the Class of 1892, and Mrs. Plyler. The sum of \$50 is awarded annually at Commencement, preferably to that member of the Senior Class who in character and conduct, in scholarship and athletic achievement, in manly virtues and the capacity for leadership, has most nearly realized the standard of the ideal student. The Dean of the College, the Graduate Manager of Athletics, and the President of the Student Council constitute a committee to draft and adopt regulations governing the award.

The Dr. R. C. Parker Physics Prize. Dr. R. C. Parker gave to Duke University a silver cup of Chinese manufacture to be used for the encouragement of scholarship in physics. The award is made annually by a committee from the Department of Physics, acting with the President

of the University, to that student of Physics 1-2 who by the end of the academic year is judged to have shown the greatest promise as a student of physics. The winner is chosen not only for his mathematical grades but also for his industry, growth in power of reasoning, originality of point of view, and skill in experimentation. The name of the winner is engraved on the cup which is given into his possession, subject to certain

necessary regulations, until the next award is made.

The Iota Gamma Pi Scientific Prize. The Iota Gamma Pi Science Fraternity offers an annual prize of \$25 to a member of the Junior Class, majoring in science, who is judged to be the leading student in the scientific courses of the University. The fraternity submits to the judges a list of students eligible for the prize. The committee of award is composed of the Dean of the University and one member each from the Departments of Geology, Botany, Zoology, Chemistry, Physics, and Engineering. The departments concerned choose their own representatives on this committee. The award is made on the following basis: quality of scientific work, 50 points; personality and general ability, 30 points; quality of work in departments other than scientific, 20 points. The president of the fraternity publicly awards the prize in chapel during the second week in May.

Alpha Kappa Psi Medallion. This prize is offered each year to the member of the graduating class who makes the highest record in economics and business administration during his career at the University.

The Willis Smith Prize. Mr. Willis Smith, a member of the Raleigh Bar and Chairman of the Law School Committee of the Board of Trustees of Duke University, awards each year to that member of the graduating class of the Law School who has maintained the highest scholastic average during the entire three years of Law School work, a prize consisting of a set of books selected personally by Mr. Smith each year for that purpose.

Julia Dale Prize in Mathematics. This is a prize of books given annually to the undergraduate who shows the greatest proficiency in the

study of the calculus.

The Milmow Prize, consisting of one year's subscription to the Electrical World, is awarded each year to that student from North or South Carolina graduating in the Department of Electrical Engineering, who, in the opinion of the Faculty of that department and as shown by his grades, has made the most progress in electrical engineering during

his last year in college.

The Pegram Chemistry Club Prize will be awarded in the spring of each year for scholarship in chemistry, physics, and mathematics. The prize is to consist of one year junior membership in the American Chemical Society, and a one-year subscription to either the Journal of the American Chemical Society, or to Industrial and Engineering Chemistry. To qualify for this prize the student must (1) be enrolled as an undergraduate of Duke University, (2) be taking or have taken a fourth year chemistry course. The winner of this prize is to be selected by a committee consisting of at least one Faculty member and at least two members

of the Pegram Chemistry Club; the selection is to be based on the quality-point average for all courses taken in chemistry, physics, and mathe-

matics. In case of a tie equal awards will be given.

The Sigma Xi Prize. The Society of the Sigma Xi, honorary scientific society, is devoted to the encouragement of scientific research, and seeks to stimulate those who show promise of accomplishment in scientific research. As an encouragement to younger men and women the Duke Chapter of Sigma Xi has established the following prizes to be awarded annually to students resident at Duke University: \$20.00 for an undergraduate project or paper, \$20.00 for a Master's thesis or its equivalent, and \$40.00 for a Ph.D. dissertation or its equivalent. Nominations, recommendations, copies of theses, reports or other material must be in the hands of the Secretary of the Chapter on or before May 5.

STUDENT ORGANIZATIONS AND ACTIVITIES

The Men's Association of Duke University comprises all men students in Trinity College. It functions through its officers and a council to initiate policies and to oversee matters within the control of the student body. The council is composed of nine members: three executive officers, two representatives from the Senior Class, two from the Junior Class, one from the Sophomore Class, and one from Southgate Dormitory.

The Women's Student Government Association is similar in character to the men's association. Its council is composed of the officers of the association and ex officio of the Y.W.C.A. president and an under-

graduate representative.

The Young Men's Christian Association and the Young Women's Christian Association are branches of the national student Christian Associations. Each body aims to enrich not only the religious life of its members as individuals but also to promote religious group activity. Delegates are sent each year to summer conferences, state conventions, interstate conventions, and the state Bible and missionary institutes. Every year a series of special religious services is held. The Open Forum Bible Class is conducted under the auspices of the Church Board.

Other organizations and activities include the following:

Bench and Bar Association (Pre-Legal Undergraduates); Classical Club; Debate Council (Men); Debating Club (Women); Duke Flying Club; Duke University Church (Interdenominational); Duke University Pre-Medical Society (Undergraduate Medical Group); Hesperian Union; Isotes (Independent Social Group—Women); Ministerial Fellowship; Nereidian Club (Women); Poetry Club; Polity Club; Quadrangle Pictures; Student Forum Committee (Women); Student Religious Council; The Duke Players; The Explorers' Club; Town Boys' Club; Town Girls' Club; Undergraduate Writers; Women's Athletic Association; and W. H. Pegram Chemistry Club.

HONORARY ORDERS AND FRATERNITIES (NATIONAL)

Alpha Kappa Psi (Economics); Chi Delta Phi (Literary—Women); Delta Phi Alpha (German); Kappa Delta Pi (Education); Omicron Chi Epsilon (Ministerial); Omicron Delta Kappa (Leadership—Men); Phi Beta Kappa (Scholarship); Phi Eta Sigma (Freshman Scholarship—Men); Pi Mu Epsilon (Mathematics); Sigma Delta Pi (Spanish); Sigma Pi Sigma (Physics); Sigma Xi (Scientific Society); Tau Kappa Alpha (Forensic); Tau Psi Omega (French); Theta Alpha Phi (Dramatic).

HONORARY ORDERS AND FRATERNITIES (LOCAL)

Beta Omega Sigma (Sophomore—Men); Delta Phi Rho Alpha (Athletic—Women); 9019 (Scholarship—Men); Iota Gamma Pi (Scien-

tific); Ivy (Freshman Scholarship—Women); Red Friars (Leadership—Men); Sandals (Sophomore—Women); Tombs (Athletic—Men); White Duchy (Leadership—Women).

ENGINEERING ORGANIZATIONS AND FRATERNITIES

American Institute of Electrical Engineering; American Society of Civil Engineering; American Society of Mechanical Engineers; Delta Epsilon Sigma (Honorary Engineering Fraternity); Engineers' Club and Council; Engineering Town Boys' Club.

MUSICAL ORGANIZATIONS AND FRATERNITIES

Kappa Kappa Psi (National Band Fraternity); The Duke University Instrumental Music Association, comprised of members from Duke University Band, Duke University Orchestra, and chamber music groups; The Men's Glee Club; The Women's Glee Club; The University Chapel Choir; The Woman's College Orchestra; The Woman's Music Study Club.

SOCIAL FRATERNITIES (NATIONAL)

(The Men's Panhellenic Council)

Alpha Tau Omega; Beta Theta Pi; Chi Phi; Delta Sigma Phi; Delta Tau Delta; Kappa Alpha; Kappa Sigma; Lambda Chi Alpha; Phi Delta Theta; Phi Kappa Psi; Phi Kappa Sigma; Pi Kappa Alpha; Pi Kappa Phi; Sigma Alpha Epsilon; Sigma Chi; Sigma Nu; Sigma Phi Epsilon; Zeta Beta Tau.

SOCIAL SORORITIES (NATIONAL)

(The Women's Panhellenic Council)

Alpha Delta Pi; Alpha Phi; Alpha Epsilon Phi; Delta Delta Delta; Delta Gamma; Kappa Alpha Theta; Kappa Delta; Kappa Kappa Gamma; Phi Mu; Pi Beta Phi; Sigma Kappa; Zeta Tau Alpha.

STUDENT PUBLICATIONS

(Publications Council)

Archive (Monthly); Chanticleer (Annual); Chronicle (Semiweekly); Duke 'n' Duchess (Monthly Humor).

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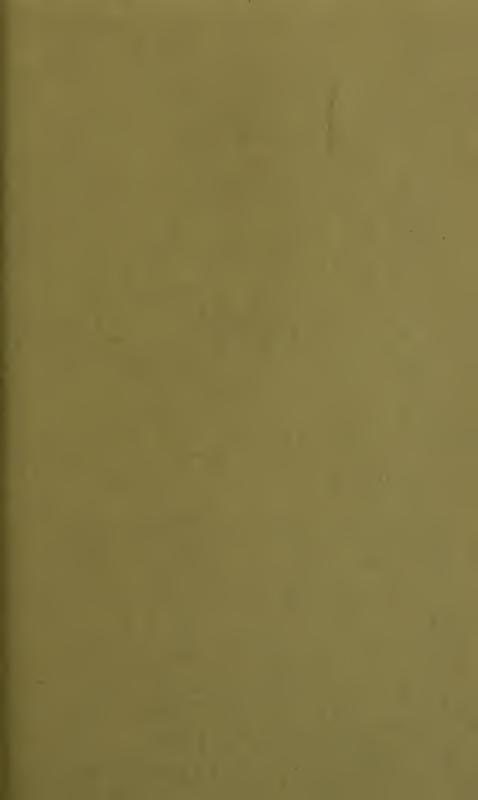


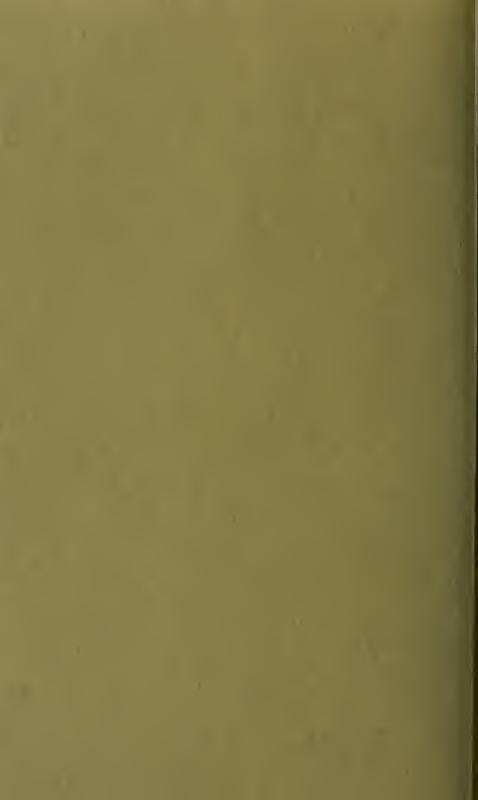












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The Graduate School of Arts and Sciences



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For Bulletin of The Graduate School of Arts and Sciences, apply to The Dean of the Graduate School, Duke University, Durham, N. C.

For Bulletin of The School of Law, apply to The Dean of the School of Law, Duke University, Durham, N. C.

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THE GRADUATE SCHOOL OF ARTS AND SCIENCES



1940-1941 ANNOUNCEMENTS FOR 1941-1942

> DURHAM, NORTH CAROLINA 1941



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UNIVERSITY CALENDAR

1941

- June 10. Tuesday, 9:00 A.M.—Registration of students for Summer School, first term.
- June 11. Wednesday, 2:00 p.m.—Instruction begins for Summer School, first term.
- July 4. Friday—Independence Day: a holiday.
- July 19-21. Saturday, Monday—Final examination for Summer School, first term.
- July 22. Tuesday, 9:00 A.M.—Registration of students for Summer School, second term.
- July 23. Wednesday, 2:00 p.m.—Instruction begins for Summer School, second term.
- Aug. 29-30. Friday, Saturday—Final examinations for Summer School, second term.
- Sept. 17. Wednesday, 11:00 A.M.—Formal opening of the College; registration of matriculated students.
- Sept. 18. Thursday—Instruction for Sophomores, Juniors, and Seniors begins.
- Sept. 18-20. Thursday, Friday, and Saturday, 9:15 A.M.-12:45 P.M.; Thursday and Friday, 2:30 P.M.-4:30 P.M.—Registration of graduate students.
- Oct. 15. Wednesday—Last day for submitting thesis subjects for the degree of Doctor of Philosophy.
- Nov. 3-8. French examinations for candidates for graduate degrees. Candidates register in the Graduate Office for these examinations before October 28.
- Nov. 10-15. German examinations for candidates for graduate degrees. Candidates register in the Graduate Office for these examinations before November 4.
- Nov. 15. Saturday—Last day for submitting thesis subjects for the degrees of Master of Arts and Master of Education.
- Nov. 20. Thursday—Thanksgiving Day: a holiday.
- Dec. 11. Thursday—Duke University Day.
- Dec. 20. Saturday, 1:00 P.M.—Christmas recess begins.

1942

- Jan. 5. Monday, 8:00 A.M.—Instruction is resumed.
- Jan. 12-16. Reading period.
- Jan. 17. Saturday—Mid-year examinations begin.
- Jan. 29-31. Thursday, Friday, and Saturday, 9:15 A.M.-12:45 P.M. Thursday and Friday, 2:30 P.M.-4:30 P.M.—Registration for second semester.
- Feb. 2. Monday—Second semester begins.

- March 2. Monday—Last day for applying for University fellowships, graduate assistantships, and graduate scholarships.
- March 2-7. French examinations for candidates for graduate degrees. Candidates register in the Graduate Office for these examinations before February 25.
- March 9-14. German examinations for candidates for graduate degrees. Candidates register in the Graduate Office for these examinations before March 2.
- March 21. Saturday, 1:00 P.M.—Spring vacation begins.
- March 30. Monday, 8:00 A.M.—Instruction is resumed.
- April 10. Students who expect to receive an advanced degree in June should notify the Graduate School Office to that effect.
- May 1-15. Reading period.
- May 1. Friday—Last day for submitting theses for degree of Doctor of Philosophy.
- May 15. Friday—Last day for submitting theses for degrees of Master of Arts and Master of Education.
- May 22. Friday—Final examinations begin.
- June 6. Saturday—Commencement opens: Senior Class Day; meeting of the Board of Trustees.
- June 7. Sunday—President's Address to Graduating Class; Commencement Sermon.
- June 8. Monday—Commencement Address; Alumni-Alumnae Luncheon; Graduating Exercises; Lowering of the Flag by the Graduating Class.

OFFICERS OF ADMINISTRATION

*WILLIAM PRESTON FEW, A.B., A.M., Ph.D., Litt.D., Ed.D., L.H.D., LL.D.

President

**ROBERT LEE FLOWERS, A.M., LL.D.

President

WILLIAM HANE WANNAMAKER, A.B., A.M., Litt.D. Viee-President and Dean of the University

HENRY RUDOLPH DWIRE, A.B., A.M. Vice-President and Director of Public Relations and Alumni Affairs

CALVIN BRYCE HOOVER, A.B., Ph.D., Litt.D. Dean of the Graduate School of Arts and Sciences

WALTER HAROLD DELAPLANE, A.B., A.M., Ph.D. Assistant to the Dean of the Graduate School

FRANK CLYDE BROWN, A.B., A.M., Ph.D. Comptroller

CHARLES BLACKWELL MARKHAM, A.B., A.M.
Assistant Treasurer

JOHN JORGENSEN LUND, A.B., Ph.D. Librarian

EXECUTIVE COMMITTEE OF THE GRADUATE SCHOOL COUNCIL

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WILLIAM THOMAS LAPRADE, A.B., Ph.D.
ARTHUR SPERRY PEARSE, B.S., A.M., Ph.D.
JOSEPH JOHN SPENGLER, A.B., M.A., Ph.D.
NEWMAN IVEY WHITE, A.B., A.M., Ph.D.
ROBERT RENBERT WILSON, A.B., A.M., Ph.D., LL.D.

^{*} Died, October 16, 1940. ** Elected, January 29, 1941.

INSTRUCTIONAL STAFF

MEMBERS OF THE GRADUATE SCHOOL COUNCIL

The date denotes the first year of service at Duke University.

ADAMS, DONALD KEITH, (1931) A.B., M.A., Ph.D. Associate Professor of Psychology Cornwallis Road

BAUM, PAULL FRANKLIN, (1922) A.B., A.M., Ph.D. Professor of English

112 Pinecrest Road

BIGELOW, LUCIUS AURELIUS, (1929) S.B., Ph.D. Associate Professor of Chemistry

131 Pinecrest Road

*Blomquist, Hugo Leander, (1920) B.S., Ph.D. Professor of Botany

922 Demerius Street

Branscomb, Bennett Harvie, (1925) A.B., B.A., M.A., Ph.D., Litt.D. Professor of New Testament Language and Literature Chelsea Circle, Hope Valley

Brown, Frank Clyde, (1909) A.B., A.M., Ph.D. Professor of English

410 Buchanan Road

Brownell, William Arthur, (1930) A.B., A.M., Ph.D. Professor of Educational Psychology

Hope Valley

CARLITZ, LEONARD, (1932) A.B., A.M., Ph.D. Associate Professor of Mathematics

1410 West Markham Avenue

CARR, JOHN WINDER, JR., (1926) A.B., A.M., Ph.D. Professor of Education CARROLL, EBER MALCOLM, (1923) A.B., A.M., Ph.D.

926 Monmouth Avenue Duke University

Professor of History CLYDE, PAUL HIBBERT, (1937) A.B., A.M., Ph.D. Associate Professor of History

Faculty Apartments

Cole, Robert Taylor, (1935) A.B., A.M., Ph.D.

7 Sylvan Road

Associate Professor of Political Science COWPER, FREDERICK AUGUSTUS GRANT, (1918) A.B., A.M., Ph.D.

Professor of Romance Languages 1017 Dacian Avenue

†Cunningham, Bert, (1916) B.S., M.S., Ph.D. Professor of Biology

1200 West Markham Avenue

DE VYVER, FRANK TRAVER, (1935) A.B., A.M., Ph.D. Associate Professor of Economics

Sylvan Road

ELLWOOD, CHARLES ABRAM, (1930) Ph.B., Ph.D., LL.D. Professor of Sociology

129 Pinecrest Road

GERGEN, JOHN J., (1936) A.B., M.A., Ph.D. Professor of Mathematics

1005 Monmouth Avenue

‡GILBERT, ALLAN, (1920) B.A., A.M., Ph.D. Professor of English

516 Carolina Circle

GILBERT, KATHERINE EVERETT, (1930) A.B., A.M., Ph.D. Professor of Philosophy

516 Carolina Circle

* Absent on leave, 1941-42.

† Absent on leave, first semester, 1941-42. ‡ Absent on leave, second semester, 1941-42.

GOHDES, CLARENCE, (1930) A.B., A.M., Ph.D. Professor of English 1001 Lamond Avenue Gross, Paul Magnus, (1919) B.S., A.M., Ph.D. William Howell Pegram Professor of Chemistry Hope Valley HALL, FRANK GREGORY, (1926) A.B., A.M., Ph.D. Professor of Zoology 122 Pinecrest Road Hamilton, Earl Jefferson, (1927) B.S., A.M., Ph.D. 1015 Demerius Street Professor of Economics HARGITT, GEORGE THOMAS, (1930) Ph.B., A.M., Ph.D., Sc.D. 811 Watts Street Professor of Zoology HART, HORNELL NORRIS, (1938) A.B., M.A., Ph.D. Professor of Sociology Randolph Road HOLTON, HOLLAND, (1912) A.B., J.D. Professor of the History and Science of Education 809 Watts Street Hoover, Calvin Bryce, (1925) A.B., Ph.D., Litt.D. Professor of Economics 1702 Duke University Road Hubbell, Jay Broadus, (1927) A.B., A.M., Ph.D. Professor of English 121 Pinecrest Road IRVING, WILLIAM HENRY, (1936) B.A., B.A. (Oxon), M.A., Ph.D. Professor of English 207 Legion Avenue JENSEN, HOWARD EIKENBERRY, (1931) A.B., A.M., B.D., Ph.D. Professor of Sociology 143 Pinecrest Road JORDAN, BRADY RIMBEY, (1927) Litt.B., Ph.D. Professor of Romance Languages 117 Pinecrest Road Korstian, Clarence Ferdinand, (1930) B.S.F., M.F., M.A., Ph.D.

Professor of Silviculture 1718 Duke University Road Kramer, Paul Jackson, (1931) A.B., M.Sc., Ph.D. Associate Professor of Botany Cranford Road *Lanning, John Tate, (1927) A.B., A.M., Ph.D. Associate Professor of History Hope Valley LAPRADE, WILLIAM THOMAS, (1909) A.B., Ph.D. Professor of History 1108 Monmouth Avenue London, Fritz, (1938) Ph.D.

Professor of Theoretical Chemistry 1308 West Markham Avenue *Lundeberg, Olav, (1931) A.B., A.M., Ph.D. Associate Professor of Romance Languages 127 Pinecrest Road LUNDHOLM, HELGE, (1930) Fil. Kand., Fil. Lic., Ph.D. Professor of Psychology 803 Second Street Morgan, George Allen, Jr., (1936) Ph.B., A.M., Ph.D. Associate Professor of Philosophy 713 Anderson Street

Associate Professor of Philosophy
713 Anderson Street
Nelson, Ernest William, (1926) A.B., A.M., Ph.D.
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Hope Valley

†NIELSEN, WALTER MCKINLEY, (1925) B.S. in E.E., Ph.D. Professor of Physics 139 Pinecrest Road NORDHEIM, LOTHAR WOLFGANG, (1937) Ph.D.

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* Absent on leave, second semester, 1941-42.

^{*} Absent on leave, second semester, 1941-42. † Absent on National Defense leave, 1941-42.

Pearse, Arthur Sperry, (1926) B.S., A.M., Ph.D. Professor of Zoology Chelsea Circle, Hope Valley

Peppler, Charles William, (1912) A.B., Ph.D. Professor of Greek

406 Buchanan Road

Perlzweig, William Alexander, (1929) B.S., A.M., Ph.D.

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Hope Valley

Proctor, Arthur Marcus, (1923) A.B., A.M., Ph.D. Professor of Education

2106 Myrtle Drive

RANKIN, ROBERT STANLEY, (1927) A.B., A.M., Ph.D.

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Associate Professor of Economics 133 Pinecrest Road

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908 West Club Boulevard

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813 Second Street

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116 Pinecrest Road

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Cranford Road

Vollmer, Clement, (1926) A.B., A.M., Ph.D. Professor of German

2114 Myrtle Drive

von Beckerath, Herbert, (1935) Ph.D. Professor of Economics and Political Science

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WANNAMAKER, WILLIAM HANE, (1904) A.B., A.M., Litt.D.

Professor of German Myrtle Drive

Webb, Albert Micajah, (1903) A.B., A.M.

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* Absent on leave, first semester, 1941-42.

Wolf, Frederick Adolphus, (1927) A.B., A.M., Ph.D.

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701 Club Boulevard

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BONNER, LYMAN GAYLORD, (1937) A.B., Ph.D.

Instructor in Physics

Nation Avenue

Bookhout, Cazlyn Green, (1935) A.B., A.M., Ph.D.

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CLARK, KENNETH WILLIS, (1931) A.B., B.D., Ph.D.

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1308 West Markham Avenue

Coile, Theodore Stanley, (1935) B.S.F., M.F., Ph.D.

Assistant Professor of Forest Soils

D-3-C University Apartments

Conant, Norman Francis, (1935) B.S., A.M., Ph.D.

Assistant Professor of Bacteriology

Tuscaloosa Forest

CONSTANT, FRANK WOODBRIDGE, (1930) B.S., Ph.D.

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COOLIDGE, THOMAS BUCKINGHAM, (1935) B.A., Ph.D., M.D.

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Dressel, Francis George, (1929) B.S., M.S., Ph.D. Tuscaloosa Forest Instructor in Mathematics

Dubs, Homer Hasenpflug, (1937) A.B., A.M., B.D., Ph.D. Acting Professor of Philosophy

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Guess Road

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2511 University Drive

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2117 Myrtle Drive

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GILLIN, JOHN, (1941) B.A., M.A., A.M., Ph.D. Associate Professor of Sociology

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124 Pinecrest Road

GROVES, ERNEST RUTHERFORD, (1938) A.B., B.D., Research Professor of Sociology at the University of North Carolina Lecturer on Sociology, second half-year Chapel Hill, N. C.

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1402 Alabama Avenue

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1020 Rose Hill Avenue

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132 Pinecrest Road

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1403 Oakland Avenue

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Lester, Richard Allen, (1940) Ph.B., M.A., Ph.D. Assistant Professor of Economics 2020 Wilson Street

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2016 Myrtle Drive

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5 Sylvan Road

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132 Pinecrest Road

NEURATH, HANS, (1938) Ph.D. Assistant Professor of Biochemistry

Manchester Apartments

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2528 University Drive

Outler, Albert C., (1938) A.B., A.M., B.D., Ph.D. Assistant Professor of Historical Theology Pagán, Francisco Mariano, (1941) B.S., M.S., Ph.D.

2122 Englewood Avenue

Exchange Professor of Botany Perry, Harold Sanford, (1932) A.B., Ph.D. Assistant Professor of Botany

Duke University 1222 Sixth Street

PETRY, RAY C., (1937) A.B., A.M., Ph.D. Assistant Professor of Church History

128 Pinecrest Road

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Assistant Professor of History RANKIN, WILLIAM WALTER, JR., (1926) B.E., M.A.

Woodridge Drive, Rockwood

Professor of Mathematics REID, JOHN TURNER, (1939) A.B., A.M., Ph.D. Assistant Professor of Romance Languages

1011 Gloria Avenue 2613 University Drive

ROBERTS, JOHN H., (1931) A.B., Ph.D. Associate Professor of Mathematics

Legion Avenue

Rose, Jesse Lee, (1936) A.B., M.A., Ph.D. Instructor in Latin

5 Powe Apartments

Russell, Elbert, (1926) A.B., A.M., Ph.D. Professor of Biblical Interpretation

811 Vickers Avenue

‡Saylor, John Henry, (1928) A.B., A.M., Ph.D. Assistant Professor of Chemistry

707 Club Boulevard

SCHUMACHER, FRANCIS X., (1937) B.S. Professor of Forestry

6 Sylvan Road

Seeley, Walter James, (1925) E.E., M.S. Professor of Electrical Engineering

1005 Urban Avenue

* Absent on National Defense leave, 1941-42. † Absent on leave, 1941-42. ‡ Absent on leave, first semester, 1941-42.

SHIPMAN, GEORGE A., (1938) A.B., Ph.D. Associate Professor of Political Science

140 Pinecrest Road

SMITH, DAVID TILLERSON, (1930) A.B., M.D. Hope Valley Professor of Bacteriology and Associate Professor of Mcdicine

Springer, John Young, (1936) A.B., M.B.A.

Assistant Professor of Economics

J-2-B University Apartments

STILL, BAYRD, (1938) A.B., A.M., Ph.D.

Assistant Professor of History 105 Erwin Apartments

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Swett, Francis Huntington, (1930) A.B., M.A., Ph.D.

Professor of Anatomy

Hope Valley

TAYLOR, HAYWOOD MAURICE, (1930) B.S., M.S., Ph.D. Associate Professor of Biochemistry and Toxicology

University Drive, Rockwood

THOMPSON, EDGAR T., (1935) A.B., A.M., Ph.D.

Associate Professor of Sociology

138 Pinecrest Road

THOMSON, ROY BERTRAND, (1938) B.S., M.F., Ph.D.

Associate Professor of Forest Economics K-1-A University Apartments

TRUESDALE, JAMES N., (1930) A.B., A.M., Ph.D.

Instructor in Greek

Duke University

Walton, Loring Baker, (1929) A.B., Lic. ès. L.

Associate Professor of Romance Languages

Cranford Road

WARD, CHARLES EUGENE, (1927) A.B., A.M., Ph.D.

Assistant Professor of English

110 Pinecrest Road

WAY, VERNON ELGIN, (1930) A.B., A.M., M.A.

Assistant Professor of Greek 909 Gregson Street

WILSON, ROBERT NORTH, (1910) A.B., M.S.

Professor of Chemistry 822 Third Street

Woody, Robert Hilliard, (1929) Ph.B., A.M., Ph.D.

Assistant Professor of History 2534 University Drive

Youngstrom, Karl A., (1937) A.B., M.A., Ph.D.

Instructor in Anatomy 228 Fir Street

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McLean, Ruth Chemistry 2 Powe Apartments A.B., Woman's College of the University of North Carolina; A.M., Duke

FELLOWS AND GRADUATE ASSISTANTS

UNIVERSITY FELLOWS

Abbett, Carol Hope History Minneapolis, Minn. A.B., Macalester College; A.M., University of Minnesota

Bennett, John Boyce Religion Durham, N. C. A.B., Wofford College; B.D., Duke University

Carper, Doris Viola Education Norfolk, Va. B.S., Farmville State Teachers College; A.M., Duke University

Civin, Paul A.B., University of Buffalo	Mathematics	Buffalo, N. Y.
Colley, Frank Harris A.B., A.M., Duke University	History	Washington, Ga.
Decker, John Peter B.S., University of Idaho; A.M.,	Botany Duke University	Ione, Wash.
Derr, Paul Franklin B.S., A.M., Duke University	Chemistry	West Hazelton, Pa.
Diamond, Stanley Stuart A.B., University of Wichita; A.M	Political Science I., Haverford College	Wichita, Kan.
Downton, James Bertram A.B., University of Buffalo	Greek	Buffalo, N. Y.
Elmer, Robert Watson A.B., Amherst College; A.M., Sy	English rracuse University	Durham, N. C.
Hardcastle, Aaron Bascom A.B., A.M., University of Richmo	Zoology nd	Durham, N. C.
Hudson, Boyd Ellyson, Jr. A.B., Duke University	Chemistry	Toano, Va.
Lewis, Harold Walter B.S., Middlebury College; A.M.,	Physics University of Buffalo	Keene, N. H.
McDougall, Kenneth Dougal Duke University	Zoology	Durham, N. C.
Masten, Gedney Russell A.B., A.M., Wesleyan University	Economics	Tenafly, N. J.
Richards, James Austin, Jr. A.B., Oberlin College	Physics	Oberlin, Ohio
Russell, Charles Daniel, Jr. B.S., Niagara University; M.S., (Chemistry California Institute of	Niagara Falls, N. Y. Technology
Schultz, Harold A.B., Columbia University; A.M.	History , Duke University	Memphis, Tenn.
Skell, Philip B.S., College of the City of New	Chemistry York	Bronx, N. Y.
Stainbrook, Edward John A.B., Allegheny College	Psychology	Meadville, Pa.
Teagarden, Lucetta Jane A.B., Wilson College; A.M., Duk	English te University	Carmichaels, Pa.
Wade, Luther Irwin, Jr. A.B., Duke University	Mathematics	Elkin, N. C.
Wood, Frederic Marcus, Jr. A.B., Western Reserve University	Latin 7; A.M., Duke Univer	Painesville, Ohio
Wright, Ernest Baskin A.B., University of Alabama; A.	Political Science M., University of W	University, Ala.
BROOKING	S-DUKE FELLOW	
Sturm, Albert Lee, Jr. A.B., Hampden-Sydney College;	Political Science	Appalachia, Va.

GRADUATE ASSISTANTS

Chemistry Montreal, Quebec, Canada

Abramovitch, Benjamin B.S., McGill University

Ayres, Erle Bingham B.S., A.M., Boston University	Chemistry	Wollaston, Mass.
Barton, Eleanor Phillips A.B., Woman's College of the lumbia University	Zoology University of No	Greensboro, N. C. orth Carolina; A.M., Co-
Beck, Lloyd Henry A.B., A.M., Oberlin College	Psychology	Oberlin, Ohio
*Boyer, Charles Chester B.S., St. Bonaventure College; A	Zoology A.M., Duke Unive	Scottsville, N. Y.
Brandis, Royall A.B., University of Richmond	Economics	Richmond, Va.
Brown, Walter Varian A.B., M.S., Brown University	Botany	Lancaster, Mass.
Buffinton, Jean A.B., A.M., Mount Holyoke Coll	English ege	Williamstown, Mass.
Campbell, Philip Storer B.S., Bowdoin College	English	Portland, Me.
†Cooke, Russell Yale, Jr. A.B., Duke University	Economics	Charlotte, N. C.
Dibeler, Vernon Hamilton B.S., A.M., Duke University	Chemistry	Roselle Park, N. J.
Douglass, Ann Elizabeth A.B., Swarthmore College	Psychology	New London, Conn.
Eager, Howard, Jr. A.B., Duke University	Psychology	Ft. Sam Houston, Texas
Eller, Meredith Freeman A.B., S.T.B., Boston University	Religion	Mapleville, R. I.
Erion, Gene Lloyd A.B., Doane College; A.M., Uni	Economics versity of Wiscon	Omalia, Neb.
Feagins, Carroll Spurgeon A.B., Duke University; A.M., U	Philosophy Iniversity of Micl	Clearwater, Fla.
Flemister, Launcelot Johnson, Jr. A.B., A.M., Duke University	Zoology	Atlanta, Ga.
Gardner, Ralph A. A.B., A.M., University of Kentuc	Philosophy ky	Somerset, Ky.
Gilmore, Patricia A.B., Smith College; A.M., Duk	English e University	Brooklyn, N. Y.
Gruen, Edward Dietrich A.B., Dartmouth College	Economics	Dayton, Ohio
Haag, Vincent Harold B.S., Catawba College	Mathematics	Lebanan, Pa.
Hall, Maurice Barker B.S., M.S., Brigham Young Univ	Physics versity	Santaquin, Utah
Hardendorff, Victor Hall A.B., Amherst College	English	North Amherst, Mass.
Hayes, William Ernest B.S., Rutgers University; A.M.,	Education Columbia Univers	Somerville, N. J.
* Resigned, February 11, 1941. † Resigned, January 7, 1941.		

Holder, Ray Religion Lucedale, Miss. A.B., A.M., University of Mississippi Holder, Virginia Lee Smart Latin Portsman, A.B., Randolph-Macon Woman's College; A.M., Duke University Portsmouth, Va. English Hoopes, Luther Hartman York, Pa. A.B., Catawba College Horton, Paul Burleigh Sociology Rootstown, Ohio A.B., Kent State University Humm, Harold Judson Coral Gables, Fla. Botany B.S., University of Miami Humphreys, Mary Emily Berlin, Md. Botany A.B., Western Maryland College; A.M., Duke University Mathematics Jarnagin, Milton Preston, Jr. Athens, Ga. A.B., A.M., University of Georgia Johnson, Lawrence Clifford Sociology Iowa City, Iowa A.B., State University of Iowa Corinth, Miss. Jones, Jameson Miller Religion A.B., Southwestern; B.D., Louisville Presbyterian Theological Seminary Jones, Ralph Gray Political Science Jackson, Miss. A.B., A.M., Louisiana State University Koch, Sigmund Psychology New York, N. Y. A.B., New York University; A.M., State University of Iowa *Krause, James Barber, II Zoology Williamsport, Pa. A.B., University of Alabama †Lenander, Harlan Edward Physics Lindsborg, Kan. A.B., Southwestern College Philosophy Rochester, N. Y. Levitsky, Ihor Alexander A.B., University of Rochester; A.M., University of Buffalo Chemistry Linschitz, Henry New York, N. Y. B.S., College of the City of New York Livingston, Robert Blair Colorado Springs, Colo. Botany A.B., Colorado College McDougall, Gordon Hosmer Mathematics Westford, Mass. B.S., Bowdoin College McGehee, William Overton, Jr. Psychology Kent, Va. B.S., University of Virginia Sociology McIntyre, William Russell Evanston, Ill. B.Š., A.M., Northwestern University Lorain, Ohio Minnich, Lawrence Arthur, Jr. History A.B., Princeton University Political Science Mitchell, William Alexander Clemson, S. C. B.S., Clemson College; A.M., University of North Carolina Neel, Samuel Regester, Jr. Religion Cumberland, Md.

A.B., Emory and Henry College

Parker, Anne Elizabeth Romance Languages Chattanooga, Tenn.
A.B., University of Chattanooga; A.M., Duke University

* Second semester only.

^{*} Second semester only.
† Resigned, January 23, 1941.

Patterson, James Reid B.S., Davidson College	Physics	Durham, N. C.
Pethick, Mary Grace A.B., Duke University	Botany	Durham, N. C.
Pratt, Lanier Ward A.B., Davidson College; A.M.	Romance Languages , Duke University	Louisville, Ky.
Randall, Elma Louise A.B., John B. Stetson Univers	Zoology	Daytona Beach, Fla.
Rapp, Marvin August A.B., Colgate University; A.M	History I., Duke University	Buffalo, N. Y.
Reynolds, John Bradley A.B., Duke University	Education	Mount Savage, Md.
Roberg, Jane B.S., University of Washington	Physics on; A.M., Duke University	Bellingham, Wash.
Roberts, Henry Stoutte, Jr. A.B., Mercer University	Zoology	Milledgeville, Ga.
Saxe, LeRoy Hallowell, Jr. B.S., Shippensburg State Teac	Zoology thers College; A.M., Univ	Shippensburg, Pa. ersity of Pennsylvania
Schnabel, Margaret Jane A.B., Oberlin College	Zoology	Lima, Ohio
*Shannon, Edgar Finley, Jr. A.B., Washington and Lee U	English Iniversity	Lexington, Va.
Sisk, Glenn Nolen A.B., A.M., University of A	History labama	Livingston, Ala.
Smith, Edwin Studley B.S., Furman University	Chemistry	Augusta, Ga.
Smith, William Jordan Joseph A.B., University of Texas	Economics	Dallas, Texas
Starling, James Holt A.B., A.M., University of A	Zoology labama	Durham, N. C.
Stewart, Paul Dekker A.B., Hope College; A.M., I	Political Science Duke University	Washington College, Tennessee
Strickland, Irma Surovy A.B., A.M., Hunter College	Economics	Atlanta, Ga.
Tompson, Reade Yates B.S., Brown University	Chemistry	Attleboro, Mass.
Van Voorhis, Robert Henry A.B., Duke University	Economics	Rutherford, N. J.
Watts, Daniel Thomas A.B., Elon College	Zoology	Elon College, N. C.
Williams, Melvin John A.B., B.D., Duke University	Sociology	Durham, N. C.
Wilson, Charles Christopher B.S., University of Miami	Botany	Miami, Fla.
GR. Aldridge Alfred Owen	ADUATE SCHOLARS	Puffelo N V
Aldridge Altred Duen	Harrisch	Kuttalo N V

Aldridge, Alfred Owen English B.S., Indiana University; A.M., University of Georgia
* Second semester only.

Auxier, Charles Carson A.B., Berea College	Economics	Superior, W. Va.
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Bradshaw, Catherine Pauline A.B., College of St. Teresa; A.M.	Greek , University of M	Kimball, S. D.
Bronson, Arthur Harold B.S. Syracuse University	Forestry	Brooklyn, N. Y.
Bryan, William Alfred A.B., College of Charleston; A.M	English ., Duke Universit	Sumter, S. C.
Cleveland, Leslie Joseph A.B., Carleton College	History	International Falls, Minn.
Craghead, Frances Ann A.B., Randolph-Macon Woman's	Latin College	Lynchburg, Va.
*Early, Benjamin Weisiger A.B., A.M., University of Virgini	English a	Richmond, Va.
Erwin, Aurel Maner A.B., Mercer University	Romance Langua	ges Macon, Ga.
Faires, Robert Edgerton B.S., Ohio University	Physics	Chesterhill, Ohio
Gervin, Spencer Rex B.S., East Tennessee State Teach	Political Science ers College	Johnson City, Tenn.
Goodman, Warren Herbert A.B., Brooklyn College	History	Brooklyn, N. Y.
Gould, Robert Kent A.B., A.M., Duke University	Chemistry	Hamburg, N. J.
Grasty, George Mason A.B., Washington and Lee Unive	German rsity	Lexington, Va.
Hinshaw, Clifford Reginald, Jr. A.B., High Point College	History	High Point, N. C.
Hosack, Robert Ewing A.B., College of Wooster; A.M.,	Political Science University of Ch	Durham, N. C.
Kamin, Henry B.S., College of the City of New	Biochemistry York	Brooklyn, N. Y.
Kirk, Russell Amos A.B., Michigan State College	History	Plymouth, Mich.
Kneipp, Janet Pierce Rettew A.B., Duke University	English	Harrisburg, Pa.
Kozlowski, Theodore Thomas B.S., Syracuse University	Forestry	Buffalo, N. Y.
*Massey, Calvin LeRoy B.S., Colorado State College of A University	Forestry Agriculture and I	Wheatridge, Colo. Mechanics; A. M., Duke

Murdoch, Bernard Constantine Education Charlotte, N. C. B.S., Appalachian State Teachers College; M. Ed., University of Cincinnati

† Resigned, February 19, 1941. * Second semester only.

New York, N. Y. Ogden, John Patton History A.B., Princeton University Schaedler, Louis Calvern English Racine, Wis. A.B., Wabash College Economics Atlantic City, N. J. Silk, Leonard Solomon A.B., University of Wisconsin Townsend, Freda Liverant English York, Pa. A.B., Duke University Turner, Philip Allison Romance Languages Hiram, Ohio A.B., Hiram College Philosophy Grand Rapids, Mich. Vonk, Paul Kenneth

A.B., Calvin College; A.M., University of Michigan

GRADUATE INSTRUCTION IN DUKE UNIVERSITY

ADMISSION

TO GRADUATE COURSES

A student who has received the A.B. or B.S. degree for a four-year undergraduate course may be admitted to take graduate courses in the Graduate School of Arts and Sciences of Duke University, provided that his undergraduate record gives positive evidence of ability to undertake graduate study successfully. An average grade of not less than "B" is ordinarily accepted as evidence of such ability.

No college or university work taken before the Bachelor's degree is conferred, or fully earned, may be credited toward an advanced degree except under the following circumstances: A student of Duke University who lacks at the beginning of a term not more than nine semester hours of fulfilling the requirements for the Bachelor's degree may obtain permission from the Dean of the Graduate School to take during the term graduate courses sufficient to bring his total work to fifteen hours a week. Such graduate courses will be credited toward the degree of Master of Arts or Master of Education if registered in the Graduate School Office at the beginning of the term and if the student meets the requirements below for formal admission to the Graduate School.

A candidate for admission to graduate courses should ask the proper officer of the college(s) he attended to send directly to the Dean of the Graduate School an official transcript of his undergraduate record. An advanced student should provide also a transcript of the graduate work he has completed. In no case will a transcript presented by the candidate himself be accepted as a basis for admission, nor will a transcript mailed by any institution be returned to the student. An application blank for admission will be provided upon request to the Dean of the Graduate School. The transcript and application should be submitted to the Graduate School by September 1 for admission in the autumn semester and by January 15 for admission in the spring semester.

TO THE GRADUATE SCHOOL

After twelve semester hours of graduate work, the student may apply for admission to the Graduate School, and thus become a candidate for the Master's degree. Such admission is dependent upon the fulfillment of two conditions. (1) The student must have made a mark of "G" or "Good" in at least three semester hours of work, with no mark less than "S." Candidates who cannot meet this condition may at a later time submit their records for re-evaluation, provide that in their subsequent work they shall have made a substantial number of "G's." (2) The student in his undergraduate work must have met substantially the requirements for the A.B. or B.S. degree at Duke University. Any deficiencies

of undergraduate work must be satisfied before admission to the Graduate School. Graduate courses taken at Duke University prior to formal admission to the Graduate School will count toward a higher degree provided they are in accord with its requirements and are acceptable to the major department.

REGISTRATION

A student who is admitted to graduate courses will receive a permit to register, which he should present when he registers for courses. If he expects to work toward an advanced degree, he must consult with the Director of Graduate Studies or his representative in the department in which he proposes to major before registering his courses in the Graduate School Office. This can be done during the registration period in September and January. The department concerned will determine whether a student is prepared to take any particular course. In all cases the student must make up without credit toward a graduate degree all prerequisites required by the major department of candidates for advanced degrees. Students who have fulfilled the minimum residence requirements for the doctorate but who are continuing resident study at Duke University for the degree should register in the Graduate School Office, even though there may be no fees to be charged.

New students are advised to arrive early during the registration period in order to formulate their programs. Anyone registering for courses after the close of the regular registration period will be charged a late

registration fee of five dollars.

TUITION AND FEES

GENERAL FEES IN THE ACADEMIC YEAR

The following table shows the general fees and charges collected from all students and the special fees collected from those taking courses in the sciences. All fees for each semester are due and payable, unless otherwise specified, at the time of registration at the beginning of that semester. No student is admitted to classes until arrangements have been made with the Treasurer of the University for the settlement of fees.

Matriculation, per semester\$	25.00
Tuition, per semester	00.00
Room-rent—See detailed statement that follows.	
Athletic Fee, admitting students to all athletic contests held on the	
University grounds, per semester	5.00
Damage Fee, payable annually in September	1.00
Medical Fee, per semester	5.00
Library Fee, per semester	5.00
Commencement Fee, payable once by graduate students in the last	
semester before a degree is conferred	3.00
Diploma Fee, payable by candidates for degrees at the beginning of	
the second semester, refunded if the diploma is not awarded	5.00

For further information concerning room-rent, see below.

SPECIAL FEES

Graduate students in the sciences are required to pay the special laboratory fees for courses as fixed by the various departments. An administrative fee is charged in connection with special research work in the summer under direction of a member of the Faculty.

STUDENTS FROM THE UNIVERSITY OF NORTH CAROLINA GRADUATE SCHOOL

Under an experimental plan of co-operation between the University of North Carolina and Duke University, regular students from the University of North Carolina Graduate School admitted to courses in the Duke University Graduate School pay a registration fee of two dollars and any laboratory or special course fees which are required of all students.

TRANSCRIPTS

A student desiring to transfer from Duke University to another institution is entitled to one free transcript of his record. A charge of one dollar, payable in advance, is made for each additional copy. Transcripts of students who enroll in graduate courses only in the summer sessions are issued by the Summer School Office prior to the fulfillment of all requirements toward an advanced degree, after which time they can be obtained in the regular way from the Graduate School.

PAYMENTS TO FELLOWS, SCHOLARS, AND GRADUATE ASSISTANTS

Payments by the University of stipends to fellows, scholars, and graduate assistants are made in four equal installments on November 25, January 25, March 25, and May 25. Tuition and fees are charged against the stipends.

Fellows and scholars are required to pay the regular tuition and fees and are expected to take a full program of work. Assistants who are permitted to register for only four fifths of a regular program are charged a proportionate amount of the tuition in addition to the regular matriculation and other minor fees.

SPECIAL CHARGES FOR TEACHERS AND OTHERS

For the purpose of aiding North Carolina teachers in their professional preparation, Duke University grants a special tuition rate to members of the faculties of near-by schools and colleges who desire to register during the regular academic session for one or two graduate courses. For such courses a teacher regularly employed and teaching while taking these courses is charged a registration fee of five dollars at the beginning of each semester and a tuition fee of three dollars per semester hour of course credit, together with any regular laboratory fees which may be required in these courses. Under this provision a student may not register for more than seven hours per week.

Employees of Duke University who are paid on a monthly basis throughout the year, ministers of near-by churches, and wives of the Duke Faculty may be included under the above provisions by the Dean of the Graduate School, provided that such persons do not receive residence credit in any semester for more than two fifths of a regular program in meeting the requirements for advanced degrees.

The special tuition rate for teachers does not apply in any case to the holders of fellowships, graduate scholarships, and graduate assistantships annually awarded in the Graduate School nor to teachers on leave of absence and not actually engaged in their teaching at the time of registration.

LIVING ACCOMMODATIONS AND EXPENSES ROOMS

On the West Campus a new graduate building, Few Quadrangle, was opened in September, 1939, with accommodations sufficient to meet the requirements of the men in the Graduate School and in the professional schools. Special sections are reserved for those registered in the Graduate School of Arts and Sciences. On the East Campus a limited number of rooms in the Faculty Apartments is available to women registered in the Graduate School. All students' rooms, both on the Woman's College Campus and on the West Campus, are supplied with all necessary furniture. The student should plan to provide his own towels, sheets, pillows, pillowslips, bedcoverings, and table lamp.

Rooms for men in the graduate dormitory on the West Campus vary in rent between \$50.00, \$62.50, and \$75.00 per semester. In the Faculty Apartments on the Woman's College Campus, a single room rents for \$87.50 per semester, a double room for \$62.50 per semester per person.

Rooms are reserved only for students who have been officially admitted to graduate courses by the University. They are rented for no shorter period than one semester. The occupancy of a room for less than one semester will cost the student one dollar each day unless he makes the necessary arrangements with the Director in the Business Division before occupying the room. Men who desire to live in the graduate dormitory should make application to Mr. W. E. Whitford, Director of the Business Division; a room reservation fee of \$25.00 is payable at the date of acceptance of his application for admission to graduate courses. Similarly, women who wish to room in the Faculty Apartments should make application and pay the room reservation fee to Mr. W. A. Tyree, Director of the Business Division. This fee is deducted from the room-rent in the fall and is not refundable unless the request is made on or before July 15. Early application for a dormitory room is essential if the student wants to be assured of living accommodations on the campus.

A resident student who wishes to retain his room for the succeeding year must pay first a reservation fee of \$25.00 to the Treasurer's Office and then notify the office of the Director of the Business Division on or before May 15. All rooms which have not been reserved by that date will be considered vacant for the succeeding year. When a room is once engaged by a student, no change will permitted except with the consent of the Director of the Business Division.

Graduate students are required to observe the same general regulations as undergraduate students with respect to the use of the rooms. Leaving one room and occupying another without permission is strictly forbidden and will render the offender liable to a charge for both rooms for the entire semester. No occupant is permitted to rent or sublet a room to another occupant. The use of a room for merchandising of any kind is not allowed.

The University does not assume the responsibility of selecting and assigning roommates, though it will gladly render any assistance possible

in the matter.

BOARDING ACCOMMODATIONS

Men and women enrolled in the Graduate School will find superior dining facilities in the Unions on the East and West Campuses. The charge for board approximates \$225 per year. The Union on the West Campus has, in addition to the regular dining halls, a coffee shop and a sandwich shop, in which *a la carte* service is available.

ESTIMATED EXPENSES IN THE ACADEMIC YEAR

The necessary expenses of a graduate student are moderate. The University dormitories and Unions provide comfortable and wholesome living conditions at a minimum cost. Incidental expenses for recreation, smoking, traveling, clothes, and other items naturally depend on the tastes and habits of the individual. The table below lists the necessary college expenses for one year:

	Low	Moderate	Liberal
Tuition	\$200.00	\$200.00	\$200.00
Matriculation	50.00	50.00	50.00
Room-rent	100.00	125.00	150.00
Board	225.00	225.00	225.00
Laundry	20.00	25.00	30.00
Books	22.50	30.00	45.00
Library Fee	10.00	10.00	10.00
Athletic Fee	10.00	10.00	10.00
Damage Fee	1.00	1.00	1.00
Medical Fee	10.00	10.00	10.00
	0640.50	4606.00	4704.00
	\$648.50	\$686.00	\$731.00

FELLOWSHIPS, SCHOLARSHIPS, AND ASSISTANTSHIPS

For the assistance and encouragement of graduate students of high character and marked ability, the University has established a considerable number of fellowships and scholarships. Holders of fellowships and scholarships will be expected to pay the tuition fee and such additional fees as are regularly required. Applications for these appointments should be received on or before March 1 of each year. In case vacancies occur, applications submitted on a later date will be considered. Appointments which were offered for the year 1941-42 are listed below.

FELLOWSHIPS

One Angier Duke Memorial Fellowship of one thousand dollars. Twenty-two university fellowships with stipends varying from six hundred to seven hundred and fifty dollars each.

One Gurney Harriss Kearns Fellowship in Religion of seven hundred

dollars.

Fellows will be required to give a limited amount of assistance in reading papers, in laboratories, or in other departmental duties. All fellows carry a full program of graduate work.

GRADUATE SCHOLARSHIPS

Twenty-five graduate scholarships with stipends varying from four hun-

dred to four hundred and fifty dollars each.

Scholars may be asked to give a limited amount of assistance in departmental work. They normally carry a full program of graduate studies.

CHARLES W. HARGITT RESEARCH FELLOWSHIP IN ZOOLOGY

The Charles W. Hargitt Research Fellowship in Zoology, carrying a stipend of \$1,000, is restricted to research work in the field of *Cytology*. Appointment is for a single year, with the possibility of reappointment. The fellowship is primarily for post-doctoral research, though it may be applied to pre-doctoral work in rare cases. Inquiries and applications should be made to Dr. George T. Hargitt, Biology Building, Duke University, Durham, North Carolina.

FELLOWSHIPS AND GRADUATE SCHOLARSHIPS IN FORESTRY

Information regarding special fellowships and graduate scholarships in forestry may be obtained before March 1, 1942, from the Dean of the School of Forestry, Duke University, Durham, North Carolina.

BROOKINGS-DUKE CO-OPERATIVE FELLOWSHIPS

Duke University and the Brookings Institution of Washington, D. C., have entered into a co-operative arrangement for the establishment of fellowships in economics and political science. Each fellowship will be of the approximate annual value of one thousand dollars. The fellowships will be available to third-year or more advanced graduate students in Duke University, who have either completed the work for the Ph.D. degree, or who wish to do thesis work in Washington. In carrying on their work, students will use the facilities of the Brookings Institution. In most cases unmarried persons will be nominated for these appointments. Further details can be obtained from the Dean of the Graduate School, Duke University, or from the Brookings Institution, Washington, D. C. Graduate students who desire to be nominated by Duke should apply to the departments concerned not later than March 1. Nominations are transmitted to the Brookings Institution by March 15.

APPOINTMENTS AS GRADUATE ASSISTANTS

A considerable number of appointments as teaching assistants or readers will be available for graduate students. The compensation will usually

range from \$300 to \$700, depending upon the nature and amount of the work assigned. Assistants receiving \$500 or more will be registered for four fifths of a normal program of studies.

Information regarding fellowships, graduate scholarships, and graduate assistantships, together with application blanks, may be obtained from the Dean of the Graduate School, Duke University, Durham, North Carolina.

SIGMA XI PRIZE AWARDS

The Society of Sigma Xi offers each year a prize of \$20 for a Master's thesis or its equivalent and one of \$40 for a Ph.D. dissertation or its equivalent in the fields of Botany, Chemistry, Forestry, Mathematics, Medicine, Physics, Psychology, and Zoology. The student must be in residence during the academic year in which the prize is awarded. Students holding graduate appointments are eligible to compete, but instructors, part-time instructors, and interns are not eligible. The department concerned makes the nomination. Full particulars may be obtained from the secretary of the Chapter.

ADVANCED DEGREES

The degrees offered in the Graduate School of Arts and Sciences are Master of Arts (A.M.), Master of Education (M.Ed.), and Doctor of Philosophy (Ph.D.). Most departments of the University are now prepared to give a full program of work leading to the degree of Doctor of Philosophy.

REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS LANGUAGE REQUIREMENTS

Candidates for the degree of Master of Arts are required either to have a reading knowledge of a foreign language evidenced by examination or by transcript showing the completion of the third college year of the language, or to have a reading knowledge of French and German evidenced by transcript showing the completion of second-year college French and college German.

MAJOR AND MINOR SUBJECTS

As a prerequisite to graduate study in his major subject, a student must have completed a minimum of twelve semester hours of approved preliminary courses in that department and twelve additional semester hours either in that department or in related work. Many departments require eighteen semester hours of undergraduate credit. The student therefore should read carefully the special requirements listed by each department.

To obtain the degree of Master of Arts, a candidate must complete satisfactorily twenty-four semester hours of graduate courses and a thesis. The credit for the thesis is six semester hours. Each candidate for the degree must select a major subject, in which the minimum requirement

is twelve semester hours and the thesis. A candidate must take six semester hours of graduate work in a minor outside of but approved by the major department, and the remaining six semester hours in the major or minor fields or in a department approved by the major department and by the Graduate School Council. No undergraduate course may be credited toward the degree of Master of Arts.

RESIDENCE REQUIREMENTS

The minimum residence requirement of candidates for the Master's degree is one academic year. Often a longer period of residence will prove necessary. Those students who take more than fifteen semester hours of courses in the Summer School must fulfill a minimum residence requirement of thirty-three weeks.

Not more than six semester hours of credit toward the Master's degree may be given to graduates of Duke University or of other colleges or universities for acceptable graduate courses or research work completed elsewhere. Such credit shall not shorten the minimum period of full-time residence work required at Duke University. It may be used, however, to give opportunity to take six semester hours of a required language course or of required undergraduate training. No credit toward advanced degrees is given for university extension or correspondence courses.

All the work offered for the Master's degree, whether in the regular academic year or in summer sessions, must be completed within a period of six years from the date of beginning.

THESIS

The title of the thesis required in partial fulfillment of the requirements for the degree of Master of Arts or Master of Education must be approved by the department or departments concerned and filed with the Dean of the Graduate School on or before November 15 of the academic year in which it is expected that the degree will be conferred.

Three (or, at the discretion of the department, four) bound type-written copies of each thesis must be submitted to the Dean of the Graduate School in approved form on or before May 15 of the year in which the degree is conferred. The thesis is passed upon and accepted or rejected by an examining committee of three members of the Faculty. Two of the copies, the original and a carbon copy, are placed in the University Library.

EXAMINATION

Each candidate for the Master's degree is required to appear before the committee mentioned above for a final examination, which will approximate one and one-half hours in length and will be on the thesis and major field.

REQUIREMENTS FOR THE DEGREE OF MASTER OF EDUCATION

The degree of Master of Education is granted to teachers or others engaged in educational service, upon the completion of the prescribed program of study. Candidates for the degree must have had two years of practical experience in teaching when the degree is conferred. This experience may be obtained in the two years immediately prior to entering upon candidacy for the degree, or it may be obtained concurrently with the period of study for the degree.

A preliminary requirement for admission to graduate study for this degree is the completion of a minimum of eighteen semester hours of approved undergraduate work in education, including courses in educational psychology and in the history of education, or educational sociol-

ogy, or school administration.

The requirements for the degree of Master of Education are twenty-four semester hours of graduate courses and a thesis. Candidates must take a minimum of twelve semester hours of work and write a thesis in the Department of Education. At least six semester hours must be taken in some department other than the Department of Education. Students who are preparing to teach are advised strongly to take twelve semester hours of graduate work in the subjects they intend to teach. In such cases the thesis may be prepared under the joint supervision of a department in which the student expects to teach and the Department of Education.

The requirements pertaining to residence, thesis, and examination for the degree of Master of Education are identical with those for the degree of Master of Arts. Students who work toward the degree of Master of Education in the Summer School may substitute certain courses and examinations for the thesis requirement, as explained in the Bulletin of the Summer School.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

THE DEGREE

The degree of Doctor of Philosophy is a research degree; it is not based merely upon the completion of a prescribed period of study or upon the obtaining of credit for a given number of courses. The granting of the degree will be based primarily upon evidence of high attainments in a special field of knowledge and upon the production of a thesis embodying the results of original research.

A student who plans to enter upon a program of work leading to the degree of Doctor of Philosophy should consult or enter into correspondence with the Dean of the Graduate School or the Chairman or Director of Graduate Studies of the department concerned. He will then be advised as to the possibility of securing the necessary instruction and supervision of research in the desired field.

RESIDENCE

The normal period of resident graduate study, after the general requirements for admission to the Graduate School have been satisfied, is not less than three academic years. The candidate must spend at least either the last year in actual residence at Duke University, or the first

two years. A student whose undergraduate work is insufficient in amount or unsatisfactory in character may expect to spend additional time in preliminary courses essential as a basis for the graduate work he proposes to undertake.

Credit for one year of work done in summer school sessions may be given with the approval of the Graduate School Council and the department in which the student takes his major work. Except in unusual cases, graduate work of fragmentary character taken over a long period of years, or work completed many years before the student becomes a candidate for the degree at Duke University, will not be accepted as satisfying the requirements of residence.

PROGRAM OF STUDY

In the student's second year of graduate work a committee of five members is appointed by the Dean to formulate in consultation with the student the remainder of his doctoral program of study. The professor in charge of his research or the Chairman or Director of Graduate Studies in the student's major department serves as chairman. This committee, with occasional necessary changes, serves also as the examining committee on the student's preliminary and final Ph.D. examinations.

The program recommended by the committee is submitted to the Dean of the Graduate School for his approval on the regular form provided for that purpose. The student must select a major field and one or more minor related fields. When a department offers instruction in a sufficient variety of subjects and the needs of the individual student seem to require it, the Dean of the Graduate School may permit a major and minor to be taken in the same department. In all cases the student is encouraged to select a minor outside the major department.

FOREIGN LANGUAGES

A reading knowledge of French and German will be required. The student will be examined on one of the foreign languages at the beginning of his second year of graduate work. No person can come up for his preliminary examination without having satisfied the language requirements for the Doctor's degree. The department in which he takes his major work may indicate preference as to the language in which the student shall first be examined. Foreign language examinations will be conducted by the appropriate language department in conjunction with the department in which the student has his major field of work.*

PRELIMINARY EXAMINATION

Toward the end of the second full year of graduate work (or in special cases early in the third year), a preliminary examination of each candidate will ordinarily be held covering the general field of his studies. This examination will be conducted by the committee in charge of the student's work and will be either oral or written, or both as the committee may determine. A student who passes the examination will be

^{*} See University Calendar, p. 7.

recognized as a candidate for the Ph.D. degree. The examination on his subject or subjects will ordinarily be held at the time of his preliminary examination. Graduate students who transfer to Duke University to work toward the degree of Doctor of Philosophy and who have already passed the preliminary examination for that degree at another university must take the regular preliminary examination at Duke University.

If a student fails on his first examination, he may make a second attempt after six months upon the recommendation of his committee and the approval of the Dean of the Graduate School. Two failures on this examination make the student ineligible to continue work toward the Ph.D. degree at Duke University.

THESIS

The thesis for the Ph.D. degree must be a contribution to knowledge. The subject of the thesis must be filed with the Dean of the Graduate School on or before October 15 of the academic year in which the candidate desires to take the final examination for his degree. The subject must receive the written approval of the head or chairman of the department in which the candidate has his major field of work and also of the professor under whom the thesis is being written.

The thesis must be completed to the satisfaction of the professor under whom it is written, and four bound, typewritten copies in approved form must be deposited with the Dean of the Graduate School on or before May 1 if the student desires to be examined on the thesis in the same academic year. The bound copies of the thesis should contain at the end an autobiographical sketch of the student. The title page must be approved by the major department and by the Dean of the Graduate School. Two of the copies, the original and a carbon copy, are placed in the University Library.

The candidate's thesis must be published either in its original form or in a modified form approved by the Dean of the Graduate School and the committee in charge of the candidate's work. In its published form the title page should include this statement: "A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in the Graduate School of Arts and Sciences of Duke University." Ten copies of the published thesis should be deposited in the Graduate School Office as provided by regulations of the Graduate School Council. The degree will not be conferred until publication of the thesis, in approved form, within three years, has been guaranteed in a way satisfactory to the Dean of the Graduate School and the professor under whom the thesis was written.

FINAL EXAMINATION

The final examination on the thesis and on the related subject matter in the major or the minor fields will be oral. Approximately one year must elapse between the dates of the preliminary examination and the final examination. Two failures on this examination make a student ineligible to continue work toward the Ph.D. degree at Duke University.

The second examination may be given only upon the recommendation of the professor in charge of the thesis and the approval of the Dean of the Graduate School.

THE GRADING OF GRADUATE STUDENTS

Members of the Faculty are expected to report the grades of graduate students not later than February 15 for the first semester and not later than June 15 for the second semester on the cards provided for that

purpose.

In the grading of graduate students, "S" or satisfactory shall represent work of an acceptable character, "G" or good shall be the next higher grade, and "E" or exceptional shall be the highest grade. "F" or failing indicates that the grade of the student is below passing. In a course in which both graduates and undergraduates are enrolled, the grade "S" shall represent approximately an 80 per cent rating. A mark of "Incomplete" may be given when a student has failed, for an acceptable reason, to complete some portion of the required work in a course in which his standing is generally satisfactory. Unless a report is made within one year that the course has been satisfactorily completed, all credit will be lost.

GENERAL REGULATIONS

Not more than twenty-five students are permitted in a class giving graduate credit, nor are undergraduate students below the Senior year permitted in such a class. Exceptions to these rules may be made by special permission of the Graduate School Council on recommendation of the department concerned.

Candidates for advanced degrees should notify the Graduate School Office by April 10 of each year whether or not they expect to complete the requirements for the degree in time to receive it at the Commencement in Tune.

THE LIBRARY

The total number of volumes in the University Libraries on June 30, 1940, was 600,235 volumes. These are distributed among four main units: the General Library with 451,428 volumes; the Hospital (Medical) Library, 37,933 volumes; the Library of the Law School, 65,157 volumes; and the Woman's College Library, 46,895 volumes.

The work of students in the Graduate School is carried on primarily in the General Library. A Graduate Reading Room, which contains the reference material most in demand, provides a quiet and convenient place for study. Graduate students are also admitted freely to the stacks. Within the stacks are located 108 carrells or desks which are assigned on an annual basis, preference being given to students in the Graduate School. To facilitate work in the natural sciences, the General Library maintains departmental libraries adjacent to laboratories for the Departments of Chemistry, Physics, and Biology. A departmental library is also maintained for the School of Religion.

In the field of mathematics and the sciences particular attention has been given to securing files of important journals and serials. A checklist of all scientific periodicals and serials on the University campus shows a total of approximately 2,200 files in a more or less complete form. The total number of current periodicals received by subscription, exchange, and gift in 1939-40 was 3,289, exclusive of duplicates.

In the field of the social sciences and the humanities every effort has been made to secure the basic collections of source material as well as the more important publications of criticism and discussion. This has been done by the acquisition of such sets as the Die Griechischen Christlichen Schriftsteller der ersten drei Jahrhunderte, Corpus Scriptorum Ecclesiasticorum Latinorum, Migne's Patrologia, the Corpus Scriptorum Historia Byzantiae, the Monumenta Germaniae Historica, the Acta Sanctorum, the Corpus Reformatorum, the catalogs of the manuscript collections of the larger European libraries, complete files of the publications of the League of Nations, the International Labor Office, and many others. The endeavor to select the more important items in the various fields of graduate work has been supplemented by the purchase of a number of special collections and libraries. Among the more important of these might be mentioned a Peruvian library of approximately three thousand books and manuscripts; a library of several thousand volumes dealing with Brazil; the recently acquired Robertson library of Philippiniana; the Lanson Collection of French literature consisting of twelve thousand books and monographs; a Goethe collection of one thousand volumes; a Scandinavian collection of three thousand volumes: a collection of about five thousand items of early Americana, dating from the seventeenth century to 1820; the Holl church history library dealing primarily with the period of the Reformation; a collection of many thousands of church minutes and records of American denominational history; two collections of eighteenth-century English poetry and prose totaling about five thousand items; two special collections, one dealing primarily with Byron and the other with Coleridge, containing a number of manuscripts, annotated copies, and first editions; a collection of material on the Fourier movement; and the Thomas Collection of books on Chinese history and culture. Special mention should be made of the George Washington Flowers Collection of manuscripts, books, newspapers, and pamphlets dealing with all phases of Southern history.

PUBLIC DOCUMENTS

The importance of public documents as fundamental source materials for the social sciences and as containing also some of the most important work in the field of applied science is being clearly recognized, and an excellent start has been made toward a comprehensive collection of this material. The Library has been a depository for Federal documents since 1890. State documentary publications are also being systematically collected in co-operation with the University of North Carolina. Of European public documents a representative collection has been secured. Among the more notable items might be mentioned the *British Parliamentary*

Papers (since 1925), Calendar of State Papers, the Acts of the Privy Council, Hansard's Debates, the Débats Parlementaires of the French Senate and Chamber of Deputies, the Journal Officiel de la République Française, the Bulletin des Lois de la République Française, the Reichsgesetzblatt, the Verhandlungen des Reichstages, the Atti of the Italian Parliament, and the Diario of the Spanish Cortes. The public documents of the Latin-American countries, especially Argentina, Brazil, Chile, and Peru, form one of the strongest units of the Library.

Under this heading should be mentioned also the library of Professor Louis Strisower, sometime president of the Institut de Droit International, which contains approximately five thousand volumes dealing with international law. The volumes date from the seventeenth century to the present and contain some especially valuable periodical files and rare

books.

PUBLICATIONS OF EUROPEAN ACADEMIES

The Duke University Library has the publications of many of the European academies, containing monographs in most of the fields of knowledge and constituting important sources for the research programs of graduate students and Faculty. The sets comprise about two thousand volumes and include Preussische Akademie der Wissenschaften (Berlin); Gesellschaft der Wissenschaften zu Göttingen; Sächsische Akademie der Wissenschaften (Leipzig); Bayerische Akademie der Wissenschaften (Munich); Heidelberger Akademie der Wissenschaften; Akademie der Wissenschaften (Vienna); Académie des sciences (Paris); Académie des inscriptions et belles-lettres (Paris); Académie des sciences morales et politiques (Paris); Accademia dei lincei (Rome); Accademia nazionale dei lincei; Accademia pontificia dei nuova lincei (Rome); Real academia española; Academia de la historia (Madrid); Akademia nauk (Leningrad); Dansk videnskabernes selskab (Copenhagen); Norsk videnskapsakademi i Oslo; Akademie van Wetenschappen (Amsterdam); Académie royale des sciences, des lettres et des beaux-arts de Belgique (Brussels); Akademija umiejetnosci (Krakow).

NEWSPAPERS

The Library collection of newspapers contains around twelve thousand volumes. Practically all states of the Union are represented, although the major part of the collection is from along the Atlantic seaboard. Of the eighteenth-century items, the states best represented are Massachusetts, Maryland, New York, Rhode Island, Virginia, North Carolina, South Carolina, and Georgia. There is an excellent collection of nineteenth-century New England papers. There are especially long runs of the New York Herald, New York Times, New York Tribune, and the London Times. The World War period is unusually strong with about twenty-eight titles practically complete for 1914-19. There is a group of papers from Germany in the years just after the World War. Special emphasis has been placed on the Southern States, and there are numerous volumes of papers from North Carolina, South Carolina, and Virginia.

representing the Colonial period, the Ante-Bellum period, and the Civil War period. The current subscription list of eighty-four titles represents American public opinion and contains nineteen important foreign titles.

MANUSCRIPTS

The manuscript collection now contains approximately 640,000 pieces. Outstanding items include one notable Greek manuscript of the thirteenth century containing the entire New Testament. There is an interesting body of Rossetti material and a number of Tennyson letters. For the most part, however, the collection relates to the South Atlantic region. The field of American literature is represented by the papers of Paul Hamilton Hayne, Thomas Holley Chivers, William Gilmore Simms, John Esten Cooke, George Frederick Holmes, and Thomas Nelson Page. Material is most copious in the field of history, where the papers of both wellknown and minor figures provide a well-rounded picture of life in the South during the nineteenth century. Aside from politics, information can be found on all phases of social and economic life. Particular attention is given to the period of the Civil War, with the result that the collection is rich in material on civic and social as well as military phases of that conflict. Of interest for historical studies are the papers of P. G. T. Beauregard, John C. Calhoun, David Campbell, John J. Crittenden, William H. Crawford, Jefferson Davis, James Mercer Garnett, Nathanael Greene, Louis M. Goldsborough, David B. Harris, William W. Holden, T. J. (Stonewall) Jackson, John M. Kell, Robert E. Lee, Francis R. Lassiter, George McDuffie, A. T. Mahan, Willie P. Mangum, Matthew Fontaine Maury, Francis W. Pickens, Richard Singleton, and Alexander H. Stephens. The manuscript collection is increasing at the rate of about fifty thousand items annually.

EXCHANGE PRIVILEGES WITH THE LIBRARY OF THE UNIVERSITY OF NORTH CAROLINA

The libraries of Duke University and of the University of North Carolina have completed arrangements for the fullest exchange of privileges and resources. Each library contains a catalogue of the contents of the other, and books requested from the other library are supplied through a delivery service which operates daily with the exception of Sundays. Faculty members and graduate students may secure cards admitting them to the stacks of the other library. The Library of the University of North Carolina contains approximately 374,000 volumes, besides a large collection of manuscripts relating to Southern history. Through this arrangement more than 975,000 volumes are available to students in the combined libraries.

SCIENCE LABORATORIES BIOLOGICAL LABORATORIES

The Biology Building on the West Campus contains three refrigerated rooms, an incineration room, a workshop, an aquarium room, five animal

rooms connected with outside yards, and eight dark rooms. Special laboratories are provided for advanced work in plant and animal physiology, parasitology, cytology, taxonomy, bacteriology, ecology, histology, mycology, anatomy, embryology, endocrinology, entomology, forest soils, and wood anatomy and properties. A 300-acre arboretum is being developed adjacent to the campus with Dr. E. S. Harrar in charge. A greenhouse gives adequate space for experimental work and propagation. There is an herbarium of some fifty thousand specimens of all plant groups with a large representation of the Southern flora. Dr. H. J. Oosting is Curator of the Herbarium, and Dr. I. E. Grav is the Curator of the Zoological Museum. On the East Campus, laboratories are provided for undergraduate women, and there is a small greenhouse near the Science Building. Laboratories and rooms for students doing research are equipped with vacuum, compressed air, direct and alternating current. gas, and running water. Proper equipment and supplies for biological work are available.

The Duke Forest and its streams provide excellent collecting grounds. The Duke Forest is under the management of the School of Forestry. Duke University is situated in the Piedmont region, between the mountains and the coastal plains. This gives easy access to a varied flora and fauna. North Carolina is the home of the tulip poplar, holly, rhododendron, mountain laurel, flowering dogwood, several species of insect-catching plants, cypress, and other interesting plants. Among the animals are a varied assortment which range from marine to montane species. In the woods about the University there is a great variety of animals.

The Duke Marine Laboratory at Beaufort, North Carolina, provides facilities for work on plants and animals in and near the ocean. It is situated on Piver's Island, adjacent to the Biological Laboratory of the United States Bureau of Fisheries. Dr. A. S. Pearse is Director.

PHYSICAL LABORATORIES

The physical laboratory contains approximately an acre of floor space which is devoted to instruction and research. In addition to the usual lecture and elementary laboratory facilities, laboratories are provided for work in electrical measurements, optics, atomic physics, and advanced measurements in general physics.

Rooms are provided for various instruments of research in spectroscopy, such as a 10-foot concave grating which is used in conjunction with a 32-meter-long stainless steel pipe for study of weak absorption; a vacuum spectograph with a 2-meter glass grating; an apparatus for the study of the Raman spectra of gases photographed with a large 3-prism glass f 2.5 glass Zeiss spectograph and various other spectroscopic instruments, such as the Hilger E-1, Moll microphotometer, etc.

Research facilities, such as counters, cloud chambers and ionization chambers, are available for the study of the properties of extremely high energy particles such as those present in the cosmic radiation.

A well-equipped shop operated by trained instrument makers makes

possible the development of instructional and research apparatus. A shop is also provided for the use of the Staff and graduate students.

CHEMICAL LABORATORIES

Graduate work in chemistry is carried on in a new building which has a floor area of about 57,000 square feet. The equipment of this building is modern in every respect. Of this total space a large proportion is available for research and advanced teaching. There are twenty-five double research rooms completely equipped with the usual services. In addition a number of specially designed rooms are available for present or future research such as: a photographic room, constant temperature room, distillation room, combustion room, bomb room, animal room, and rooms equipped for dielectric constant and magnetic measurements.

A glass-blowing room and a well-equipped shop, operated by a competent mechanic, provide facilities for the construction of special apparatus and for the repair and maintenance of instruments.

MEDICAL SCHOOL

In the School of Medicine elaborate facilities are provided for post-graduate research in the various branches of medical science. The Departments of Anatomy, Bacteriology and Immunology, Biochemistry, and of Physiology, Pharmacology, and Nutrition offer certain courses and adequate research facilities to students in the Graduate School of Arts and Sciences (see page 88 of this catalog). The use of the Duke Hospital Library is available to all graduate students.

THE DUKE FOREST

Through placing the Duke Forest under intensive management for forestry purposes, substantial progress has been made in developing the educational work and research in forestry. The Duke Forest consists of approximately five thousand acres of land, most of which is adjacent and easily accessible to the University campus. Situated in the lower Piedmont region, composed of second-growth shortleaf pine, loblolly pine, and hardwoods, the Forest is representative of the various types of timber growth and soils found throughout the region.

Owing to the proximity of the Forest to the laboratories, greenhouses, and library facilities of the University, an excellent opportunity exists for advanced study and research in forestry. Research, particularly in the fields of silvics, forest soils, silviculture, forest management, properties of wood, forest-tree physiology, and forest pathology, is well under way. Several members of the Botany and Zoology Staffs are also engaged on research in the Duke Forest.

For additional information see the Bulletin of the School of Forestry.

ENCOURAGEMENT OF RESEARCH

The President of the University appoints annually a University Council on Research. The twelve members of this Council are chosen from

the Faculties of the Schools of Medicine, Law, and Religion, and the Graduate School of Arts and Sciences. In May of each year the Council on Research receives written applications from members of the Faculty for subsidies to be used in the following fiscal year to aid them in carrying out research projects. Stipends are granted for the employment of research assistants, for the purchase of books and for apparatus, supplies, and equipment. Each member of the Faculty to whom a research stipend is granted must make a written report within twelve months to the Council concerning the progress of the investigation for which the stipend was allowed.

SPECIAL LECTURES

During each academic year the University Lecture Committee arranges for a number of special lectures of value to graduate students interested in various fields of knowledge. The Woman's College Lecture Series brings other guests to the campus. In addition to these lectures, a number of distinguished speakers appear each year on the programs of various schools and departments of the University.

Among the guest lecturers in 1940-41 were Dr. Paul Linebarger, recently returned from China; Mr. Ernest K. Lindley, Washington correspondent; Mr. Herbert Agar, editor of the *Louisville Courier-Journal*; and Mr. Leland Stowe, noted war correspondent of the *Chicago Daily News*.

THE UNIVERSITY PRESS

As far back as 1897 Trinity College began sponsoring the publication of *The Papers of the Trinity College Historical Society*, which was distributed to members of the Society and on exchange to other institutions. This series was the first publishing venture of the College.

In 1902, the 9019, an honor scholastic society on the campus, sponsored the launching of *The South Atlantic Quarterly*, which was later

taken over by the Press.

In 1925, after the acceptance of the indenture of trust of James B. Duke, Trinity College became Duke University, and the following year the University Press was organized as successor to the Trinity College Press, established in 1921, to publish the results of research engaged in by the Faculty and such other works as were approved by a board of editors appointed for the purpose. One of the first steps of the new organization was to revive *The Hispanic American Historical Review*, which had been founded and published from 1918 to 1922 by a group of scholars interested in Hispanic America. Since 1926 its publication has been continued without interruption and its mission has been supplemented by the publication of many studies dealing with the history, politics, and foreign relations of the Hispanic nations of the New World.

In 1929 American Literature was begun with the co-operation of the American Literature Group of the Modern Language Association. This journal was followed in 1931 by Ecological Monographs, a quarterly

sponsored by the Ecological Society of America to take care of papers

too long for inclusion in Ecology.

Character and Personality was founded in 1932 to offer a medium for the publication of studies in fields related to this phase of psychology. It is an international quarterly which appears simultaneously in the United States and Great Britain. A German edition formerly published in Germany has been forced to suspend publication.

Besides these regular quarterly publications the Press has issued *Duke University Psychological Monographs*, the title of which has been changed to *Contributions to Psychological Theory*, and *Duke University Research Studies in Education* sponsored by the Department of Education of the

University.

In 1935 the Press started the publication of the *Duke Mathematical Journal*, with the co-operation of the Mathematical Association of America, and *The Journal of Parapsychology* (1937)* for the publication of the results of research in psychoanalysis, mental telepathy, and allied studies. For the Southern Association of Colleges and Secondary Schools, the Press publishes *The Southern Association Quarterly*, official organ of the Association. The Law School issues another quarterly, *Law and Contemporary Problems*, carrying a symposium of some important legal problem in each number.

Since its organization the Press has offered to the public the products of able scholarly research to the number of more than one hundred volumes. It has not limited its scope to any one field or to any one group of authors. In addition to the many works submitted by members of the Faculty, a great number of manuscripts by authors who had no connection with the University have been issued under the imprint of the Press.

In the broadest sense, the policy of the Press is to give to the public any work which, because of the merit of its contents, its style, and its general value, deserves publication.

THE BUREAU OF APPOINTMENTS

The University maintains a Bureau of Appointments, whose services are extended to all graduate students without charge. Although placement of students in employment is most frequent in the fields of high-school teaching and industrial or commercial work, graduate students interested in college teaching or other activities should register with the Bureau in order to make available in one center information respecting their various qualifications for the employment they seek.

GRADUATE STUDY IN THE SUMMER SCHOOL

The Duke University Summer School is divided into two consecutive terms of six weeks each, in 1941 beginning June 10 and ending August 30. Graduate students who wish to work toward advanced degrees in the Summer School, particularly in Education, English, History, and

^{*} This periodical is now published twice a year by its editors, Professors Gardner Murphy of Columbia University and Bernard F. Riess of Hunter College, in New York City.

Mathematics, will find a wide selection of courses offered by members of the Duke Faculty and by visiting professors. Other departments offering sequences of work leading to the Master's degree in a series of summer terms are Botany, Economics, French, Physics, Political Science, Psychology, Sociology, Spanish, and Zoology. Students in Botany and Zoology have unusual opportunities for research and study at the Duke Marine Laboratory near Beaufort, North Carolina, besides regular course offerings at the University.

Graduate students who present more than fifteen semester hours earned in summer sessions toward the Master's degree must meet a minimum residence requirement of thirty-three weeks. No graduate student may register for more than six semester hours of credit in one summer session of six weeks. All the work presented for the Master's degree must be completed within six years from the date of beginning. Work completed earlier is not accepted toward either the course or residence requirements. Not more than one year of summer work is accepted to-

ward the residence requirements for the Ph.D. degree.

A bulletin containing information regarding the graduate courses to be offered during the summer of 1941 may be obtained by addressing the Director of the Summer School, Duke University, Durham, N. C. Summer School graduate students who desire to be admitted to graduate courses to work toward advanced degrees should make application to the Dean of the Graduate School by June 1 for admission to the first summer session and by July 15 for admission to the second summer session. They should also request the registrar of the college(s) attended to send to the Dean of the Graduate School an official transcript of their undergraduate record.

COURSES OF INSTRUCTION

Unless otherwise stated, all courses listed in this catalogue will be given on the West Campus. For those courses offered on the East Campus (E) will be inserted following the description. In general, courses with odd numbers are offered in the first semester, those with even numbers in the second semester. Some seminars bearing a single number continue throughout the year; in such cases it is indicated whether the semester hours of credit apply to the year or to each semester.

DIVISION OF ANCIENT LANGUAGES AND LITERATURES

PROFESSOR BRANSCOMB, CHAIRMAN; PROFESSORS PEPPLER, ROGERS, AND ROSBOROUGH; ASSOCIATE PROFESSOR STINESPRING; ASSISTANT PROFESSORS CLARK, GATES, AND WAY; DRS. ROSE AND TRUESDALE

GREEK

FOR SENIORS AND GRADUATES

201-202. Greek Tragedy .- 6 s.h.

Professor Peppler

203-204. Homer.—Odyssey. Pindar and Bacchylides. 6 s.h. Dr. Truesdale

205-206. Greek Historians .- 6 s.h.

PROFESSOR PEPPLER

207-208, Greek Orators.-6 s.h.

Assistant Professor Way

209-210. Plato.—Symposium, Protagoras, and parts of the Republic. 6 s.h.
Assistant Professor Way

211-212. Aristophanes.—6 s.h. Professor Peppler (Only one of the six courses listed above is offered each year.)

- 243. Athenian Topography.—The topography and monuments of ancient Athens. 3 s.h.

 Assistant Professor Way
- 244. Greek Epigraphy.—Lectures on the history of the alphabet and the development of the local Greek alphabets, followed by extensive reading of inscriptional texts in facsimile. 3 s.h.

 Assistant Professor Way
- 245. Greek Dialects.—A linguistic study of transliterated inscriptions illustrative of the major Greek dialects. The interrelations of the dialectal forms are examined, with reference, where possible, to their origin in proethnic Greek. 3 s.h.

 Assistant Professor Way
- 246. Greek Historical Inscriptions.—The more valuable historical inscriptions are read in chronological order and interpreted in their general bearing upon the course of Greek history. 3 s.h.

 Assistant Professor Way
- 247-248. Greek Archaeology.—Advanced course in the general field for Seniors and Graduates, comprising architecture, sculpture, vases, and the minor arts. 6 s.h.

 Assistant Professor Way
- (Of the courses numbered from 243 to 248, only two semester-courses are offered each year.)

FOR GRADUATES

The more advanced work of the graduate department is done in the seminar. One author or group of authors forms the center of study each year. Seminars are offered in Aristophanes (301-302), The Greek Historians (303-304), The Attic Orators (305-306), and The Greek Tragic Poets (307-308). These run through a cycle of four years. In 1941-42 the work will be:

301-302. Seminar in Aristophanes.-6 s.h.

PROFESSOR PEPPLER

Graduate students of Duke University may attend the American School of Classical Studies in Athens, Greece, without charge for tuition, and they are eligible to compete for the fellowships that are offered annually by the School. These consist of two fellowships in Greek archaeology, and one in the language, literature, and history of ancient Greece, each with a stipend of \$1,300. They are awarded mainly on the basis of examinations held in the beginning of February of each year.

LATIN AND ROMAN STUDIES

FOR SENIORS AND GRADUATES

201. Roman Fiction.
[Not offered in 1941-42]

202. Latin Christian Writers. [Not offered in 1941-42]

203-204. Roman Epic: Ennius, Vergil, Manilius, Lucan, Flaccus, Statius, Silius.—A study of this literary genre, and its development by Roman writers; extensive reading of the Roman epics. Not offered if 205-206 is given. 6 s.h. (E)

Assistant Professor Gates

205-206. Roman Drama: Plautus, Terence, Seneca.—A rapid reading course in which five plays of Plautus, three of Terence, and two of Seneca are studied. 6 s.h. (E)

Assistant Professor Gates

207-208. Roman Philosophy.—Extensive reading in the philosophical writings of Cicero, Lucretius, and Seneca. 6 s.h. (E or W) Professor Rosborough

209-210. Vulgar Latin: Introduction to Romance Philology. [Not offered in 1941-42]

211-212. Roman Oratory. [Not offered in 1941-42]

215. Introduction to Roman Art and Archaeology. [Not offered in 1941-42]

216. Topography and Monuments of Ancient Rome. [Not offered in 1941-42]

251-252. Roman Life. [Not offered in 1941-42]

281-282. Roman Historical Literature. [Not offered in 1941-42]

283-284. Roman Law.—Readings in the original sources with parallel study of modern exposition of the Roman legal system. 6 s.h.

Professor Rogers

FOR GRADUATES

309-310. Sight Reading and Composition.—Comprehensive reading in special fields of Roman Literature not included in other courses, with which the writing of Latin will be correlated. 6 s.h.

PROFESSOR ROSBOROUGH AND DR. ROSE

311-312. Latin Epigraphy.—Introduction to Latin epigraphy, with considerable practice in reading short inscriptions, first semester; and this is followed by a study of important historical inscriptions including the Monumentum Ancyranum, second semester. 6 s.h.

PROFESSOR ROSBOROUGH

375-376. Greek and Latin Linguistics.—A comparative study of the development of forms and flexions in Greek and Latin. 6 s.h.

PROFESSOR ROSBOROUGH AND DR. ROSE

Seminars: Various authors or historical periods are selected from year to year as a basis for training in criticism and research. Seminars are offered in the following: Catullus (301-302), Roman Historians (331-332), Roman Provincial Administration (341-342), The Reign of Tiberius (343-344), Martial (351-352), Horace (361-362), and Cicero's Public Career (391-392). The seminars planned for 1941-42 are:

343-344. The Reign of Tiberius .- 6 s.h.

Professor Rogers

351-352. Martial.-6 s.h.

Professor Rosborough

SANSKRIT

FOR GRADUATES

385-386. Elementary Sanskrit.—An introductory course to the classical language and literature. The linguistic importance of Sanskrit will be stressed, especially with reference to Greek, Latin, and Germanic. 6 s.h. Dr. Rose

SEMITICS

FOR SENIORS AND GRADUATES

O. T. 201-202. First Hebrew.—The principles and structure of the Hebrew language, with translations of selected Old Testament narratives. 6 s.h.

Associate Professor Stinespring

FOR GRADUATES

- O. T. 304. Aramaic.—A study of the Aramaic portions of the Old Testament, and selected passages from the Targums, Midrashes, and Talmuds. 3 s.h.

 Associate Professor Stinespring
- O. T. 305-306. Elementary Arabic.—Introduction to the classical language and literature, with some attention to the modern colloquial idiom. 6 s.h.
 [Not offered in 1941-42] Associate Professor Stinespring
- O. T. 307-308. Second Hebrew.—Samuel or Kings the first semester; Isaiah the second. 6 s.h. Associate Professor Stinespring
- O. T. 309. History of the Ancient Near East.—A survey of the early civilizations of Egypt, Palestine, Syria, and Mesopotamia in the light of Biblical archeology. 3 s.h.

 Associate Professor Stinespring
 - N. T. 316. Judaism at the Beginning of the Christian Era.—3 s.h.

 Professor Branscomb

RELATED COURSES IN OTHER DEPARTMENTS

Philosophy 217. Philosophy of Aristotle.—3 s.h. [Not offered in 1941-42]

DR. McLARTY

46 Botany

Religion 218. Galatians and I Corinthians.—3 s.h.

Assistant Professor Clark

Religion 315. Hellenistic Religions at the Beginning of the Christian Era.—3 s.h.

Assistant Professor Clark

Religion 318. The Text of the New Testament.-3 s.h.

Assistant Professor Clark

Under the terms of a cooperative agreement graduate students of Duke University may, with the approval of the chairman of their major department, take any graduate course offered by the Departments of Greek and Latin of the University of North Carolina by the payment of a nominal fee. A list of these courses will be sent upon request.

BOTANY

PROFESSOR BLOMQUIST,* CHAIRMAN—203 BIOLOGY BUILDING; PROFESSOR WOLF, DIRECTOR OF GRADUATE STUDIES—315 BIOLOGY BUILDING; ASSOCIATE PROFESSORS ADDOMS, HARRAR, AND KRAMER; ASSISTANT PROFESSORS OOSTING AND PERRY; DRS. ANDERSON AND PAGÁN

FOR SENIORS AND GRADUATES

- 202. Genetics.—The principles of heredity, their cytological basis, their bearing on other fields of biology. Laboratory work involves experimental breeding of the fruit fly and interpretation of data from the breeding of plants. Offered in alternate years. Prerequisites: one year of botany, zoology, or equivalent, and college algebra. 4 s.h. Assistant Professor Perry [Not offered in 1941-42]
- 203. Plant Cytology.—A study of the structure and organization of plant cells in relation to growth, reproduction, and especially heredity. Prerequisite: two years of botany. 4 s.h.

 Dr. Anderson
- 204. Advanced Plant Anatomy.—The structure of vegetative and reproductive organs of seed plants, including a consideration of seedling anatomy. Special reference is made to plants of economic importance. Offered in alternate years. Prerequisite: Botany 55 or equivalent. 4 s.h.

Associate Professor Addoms

- 216. Botanical Microtechnique.—Studies in methods of preparing temporary and permanent microscopical slides; theory of staining; the use of the microscope, especially microscopical measurements, drawing, and photomicrography, botanical photography, and lantern slides. Prerequisite: three semesters of botany. 4 s.h.

 DR. Anderson
- 221. Structure and Classification of Fungi.—Prerequisite: two years of botany. 4 s.h. Professor Wolf

225-226. Special Problems.—Students with adequate training may do special work in the following fields. Credits to be arranged.

(a) Bacteriology, Mycology, and Plant Pathology. Professor Wolf

(b) Cytology.

Dr. Anderson

(c) Ecology.

Assistant Professor Oosting

(d) Genetics.

ASSISTANT PROFESSOR PERRY

^{*} Absent on leave, 1941-42.

Botany 47

(e) Morphology and Anatomy of Higher Plants.

ASSOCIATE PROFESSOR HARRAR AND ADDOMS,
ASSISTANT PROFESSOR OOSTING

(f) Morphology and Taxonomy of Lower Groups.

Drs. Anderson and Pagán

(g) Physiology. Associati

ASSOCIATE PROFESSORS KRAMER AND ADDOMS

(h) Plant Microchemistry.

ASSOCIATE PROFESSOR KRAMER

(i) Taxonomy of Higher Groups.

Assistant Professor Oosting

252. Advanced Plant Physiology.—The physicochemical processes and conditions underlying the physiological processes of plants. Prerequisite: Botany 151 or equivalent; organic chemistry recommended. 4 s.h.

[Not offered in 1941-42] Associate Professor Kramer

255. Advanced Taxonomy.—A study of the historical background of plant taxonomy, modern concepts and systems of classification, nomenclatorial problems and the taxonomy of specialized groups. Prerequisite: two years of botany, including Botany 52 or equivalent. 4 s.h.

[Not offered in 1941-42]

256. Field Ecology.—An ecological survey of local vegetation, including theory and practice in the use of instruments for precise habitat studies, and analysis of community and successional relationships. Prerequisites: Botany 1, 2 and 52, or equivalent. 4 s.h.

Assistant Professor Oosting

FOR GRADUATES

305. Plant Geography.—The distribution and limits of vegetation types with special consideration of the plant communities of North America. Offered in alternate years. Prerequisite: Botany 156 or equivalent. 4 s.h.

[Not offered in 1941-42] Assistant Professor Oosting

- 307. Tropical Economic Botany.—A study of tropical plants, their culture and economic importance. 2 s.h. Dr. Pagán
- 310. Structure and Classification of Bryophytes and Pteridophytes.—The morphological and systematic characteristics of mosses, liverworts, ferns, and fern allies. Prerequisite: two years of botany. 4 s.h. DR. PAGÁN
- 311. Structure and Classification of Algae.—The morphological and ecological characteristics of the common freshwater and marine forms and the principles underlying their classification. Collecting, identification, and the making of permanent microscopical preparations. Prerequisite: two years of Botany. 4 s.h.

 PROFESSOR BLOMQUIST

[Not offered in 1941-42]

- **341. Methods in Plant Physiology.**—The theory and use of apparatus and methods in physiological research. **4 s.h.** Associate Professor Kramer
- 342. Plant Microchemistry.—The identification and estimation of the constituents of plant cells by the use of microchemical tests. Offered in alternate years. 2 s.h.

 Associate Professor Addoms

[Not offered in 1941-42]

359-360. Research in Botany.—Individual investigation in the various fields of botany. Credits to be arranged.

397-398. General Botanical Seminar.—One hour per week throughout the year. Required of all graduates majoring in botany. 2 s.h. Staff

FOREST BOTANY

FOR SENIORS AND GRADUATES

224. Forest Pathology.—Special reference to diseases of forest trees. Offered in alternate years. Prerequisites: Botany 1, 2. 3 or 4 s.h.

Professor Wolf

253-254. Dendrology.—Nomenclature, classification, and identification of woody plants with special reference to species indigenous to southeastern United States and other important forest regions of temperate North America. Laboratory and field work. Prerequisite: one year of botany. 4 s.h.

Associate Professor Harrar

RELATED COURSES IN OTHER DEPARTMENTS

These related courses may be counted toward a major in botany.

Zoology 341. Historical and Philosophical Zoology.—2 s.h.
[Not offered in 1941-42] Professor Hargitt

Forestry 257. Design of Forestry Experiments and Analysis of Data.—
5 s.h. Professor Schumacher

CHEMISTRY

PROFESSOR GROSS, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES—219 CHEMISTRY BUILDING; PROFESSORS LONDON, VOSBURGH, AND WILSON; ASSOCIATE PROFESSOR BIGELOW; ASSISTANT PROFESSORS BROWN, HAUSER, HILL, AND SAYLOR; ** DRS. BRADSHER AND HOBBS

The graduate work in the Department is planned so as to provide a broad basic training in the fields of inorganic, organic, analytical, and physical chemistry. The selection of the research problem for the A.M. or Ph.D. degree determines in which field further specialization takes place.

In the requirements for the Ph.D. degree the most emphasis is placed on the successful completion, under the direction of a member of the Staff, of a

research program leading to the solution of an original problem.

FOR SENIORS AND GRADUATES

- 215-216. Advanced Inorganic Chemistry.—A study of modern theories of valence and molecular structure; also of inorganic compounds, particularly the less common types, the colloidal state of matter, and the phase rule, illustrated by suitable laboratory preparations. Prerequisites: Chemistry 70 and 151-152. Chemistry 261-262, Physics 59-60 or 213-214, and ability to read German are desirable. 6 s.h. Professor Vosburgh and Assistant Professor Hill.
- 241. Physiological Chemistry.—A study of the chemistry of human physiology. Clinical aspects of the subject are treated with reference to the need of prospective medical students. Two recitations and six laboratory hours. Prerequisites: Chemistry 70 and 151-152. Course 261-262 is desirable though not required. 4 s.h.

 Professor Wilson
- 242. Metabolism.—Open to students who have completed course 241 or its equivalent, and who have a reading knowledge of German. Lectures and collateral reading deal with the probable fate of foodstuffs in the body, the nitrogen balance, energy requirement, nutritive ratios, vital factors, and ductless glands. The laboratory work consists mainly of blood analysis under both normal and pathological conditions. The laboratory or lectures may be taken separately. Two lectures, credit 2 s.h., and 6 laboratory hours, credit 2 s.h. 4 s.h.

 Professor Wilson

^{*} Absent on leave, first semester, 1941-42.

253-254. Advanced Organic Chemistry.—A continuation of Chemistry 151-152, including discussion of the theories of organic chemistry. The laboratory work will include qualitative organic analysis, together with preparations of the more difficult type, requiring reference to the original literature. Two lectures and three or six laboratory hours. Prerequisites: Chemistry 151-152 or equivalent and a reading knowledge of German. 6 or 8 s.h.

Associate Professor Bigelow and Assistant Professors Brown and Hauser

261-262. Physical Chemistry.—Fundamentals of general theoretical chemistry illustrated by selected laboratory experiments. Two recitations and three laboratory hours. Prerequisites: Chemistry 70, 151-152, Physics 1-2 or equivalent and Mathematics 7-8 or equivalent. Calculus is desirable but is not required. Undergraduates are admitted to this course only by permission of the Director of Undergraduate Studies. 6 s.h.

PROFESSOR GROSS, ASSISTANT PROFESSOR SAYLOR, AND DR. HOBBS

271. Introduction to Research.—Lectures on the use of chemical literature, research methods, recording and publication of results, preparation of theses, and other topics. One lecture. 1 s.h.

Professors Gross and Vosburgh, and Associate Professor Bigelow

[Offered in the second semester in 1941-42]

273-274. Seminar.—Required of all graduate students in chemistry. One hour a week discussion. 2 s.h.

Professors Gross and Vosburgh; Associate Professor Bigelow; Assistant Professors Brown, Hauser, Hill, and Saylor; Drs. Bradsher and Hobbs

275-276. Research.—The aim of this course is to give instruction in methods used in the investigation of original problems. It is open to Seniors who have had courses 70, 151-152, and who are taking 261-262. Nine hours a week and conferences. 3 or 6 s.h.

Professors Gross, London, Vosburgh, and Wilson; Associate Professor Bigelow; Assistant Professors Brown, Hauser, Hill, and Saylor; Drs. Bradsher and Hobbs

FOR GRADUATES

303. Thermodynamics.—Fundamental laws of thermodynamics and their applications to chemistry and physics. Offered jointly by the Departments of Chemistry and Physics. 3 s.h.

[Not offered in 1941-42]

[Not offered in 1941-42]

304. Chemical Thermodynamics.—A continuation of course 303 with emphasis on applications to chemical problems. The topics considered include chemical equilibrium, theory of solutions, reaction kinetics and dipole theory.

3 s.h. Professors Gross and Vosburgh, and Assistant Professor Saylor [Not offered in 1941-42]

351-352. Advanced Synthetic Organic Chemistry.—Recent advances in certain selected fields, such as medicinals, dyes, perfumes, terpenes, and alkaloids, will be discussed. The emphasis will be placed on structure studies and synthetic methods. Lecture or seminar one hour each week. 2 s.h.

Associate Professor Bigelow and Assistant Professor Hauser

363-364. Advanced Physical Chemistry.—A discussion of recent advances in particular fields such as reaction kinetics and catalysis, solutions, molecular forces and molecular structure. Prerequisites: Chemistry 261-262 or its equivalent and calculus. 6 s.h.

Professors Gross and Vosburgh; Assistant Professors
.Hill and Saylor, and Dr. Hobbs

365-366. Chemical Physics. Statistical Theory, Principles and Applications.—General introduction to statistical methods and applications to chemical problems; solution theory, reaction velocity, changes of state, quantum statistics and the metallic state. Two lectures and one conference. 6 s.h. [Not offered in 1941-42] Professor London

367-368. Chemical Physics. Theoretical Aspects of Atomic and Molecular Structure.—Theories of the chemical bond; atomic and molecular forces.

Two lectures and one conference. 6 s.h.

Professor London

RELATED COURSES IN OTHER DEPARTMENTS BIOCHEMISTRY

M241. General Biochemistry.—Prerequisites: general chemistry, organic chemistry, elementary physical and analytical chemistry and at least one year of college biology. Winter quarter. 6 s.h.

DRS. PERLZWEIG AND TAYLOR, AND STAFF

M242. Biochemical Preparations.—Prerequisite: Biochemistry M241. Spring, summer, fall quarters. Hours by arrangement. 2 s.h.

DR. TAYLOR AND STAFF

M243-244. Physical Chemical and Colloid Chemical Principles of Biochemistry.—Two hours per week throughout the year. Dr. Neurath

M341. Pathological Chemistry.—Two hours per week by arrangement. Winter, spring, and summer quarters. Prerequisites: Biochemistry M241 and Physiology M261-2. Drs. Perlzweig, Taylor, and M. L. C. Bernheim

M343. Immunochemistry.-2 s.h.

DRS. MARTIN AND NEURATH

M345. Biological Oxidations.-2 s.h.

Dr. Coolidge and Staff

ECONOMICS

PROFESSOR HOOVER, CHAIRMAN—103 ADMINISTRATION BUILDING; PROFESSOR HAMILTON, DIRECTOR OF GRADUATE STUDIES—503 LIBRARY; PROFES-SORS SPENGLER* AND VON BECKERATH; ASSOCIATE PROFESSORS BLACK, T DE VYVER, AND RATCHFORD; ASSISTANT PRO-FESSORS LESTER AND SPRINGER

FOR SENIORS AND GRADUATES

- 217. Population Problems and Resources.—A critical survey of the economic laws of returns and of pre- and post-Malthusian population theory; consideration of the relation between natural increase and the laws of economic distribution and of the effects of changes in the rate of natural increase upon various classes of industry and upon employment; examination of the factors which govern population growth and of current population trends; analysis of international economic and political problems which are founded upon population pressure; consideration of the economic and the biological aspects of differential birth rates. Second semester. 3 s.h.

 PROFESSOR SPENGLER
- 218. Business Cycles.—Description and analysis of the causes and consequences of economic rhythms and movements of various lengths (e.g., seasonal, cyclical, long-period, etc.). Analysis of methods proposed as means of curtailing such movements, or of mitigating their effects. First semester. 3 s.h. Assistant Professor Lester

^{*} Absent on leave, first semester, 1941-42. † Absent on leave, 1941-42.

- 230. Public Debts in the United States.—A study of the characteristics of public credit as shown by the experience of national, state, and local governments in the United States. Topics considered include: forms, methods, and purposes of borrowing; effects of the contraction and repayment of debts on governmental fiscal policies, the banking and credit system, and business activity; methods of controlling or limiting debts; refunding and adjustment procedures; defaults and repudiations. 3 s.h. Associate Professor Ratchford
- 231. The Economic History of Modern Europe.—A study of the economic development of Europe since the sixteenth century to the present, treating such topics as the guilds, mercantilism, money, banking, crises, the commercial revolution, the industrial revolution, the interrelationships of government and business, and the economic consequences of war. The historical backgrounds of present economic problems will be emphasized. 3 s.h. Professor Hamilton
- 232. The Economic History of the United States.—A study of the agricultural, industrial, commercial, and financial progress of the United States from Colonial times to the present day. Special attention will be devoted to mass production, business cycles, great fortunes, and the relationships between government and business. 3 s.h. Professor Hamilton
- 233. State and Local Finance.—A study of expenditures, taxation, and financial administration in state and local governments with emphasis on current problems. Special attention will be given to research methods and materials and to the financial relations between state and local governments. Prerequisite: Economics 187 or equivalent. 3 s.h.

Associate Professor Ratchford

234. Federal Finance.-A study of the expenditures, revenues, and financial administration of the government of the United States, with emphasis on current problems. Special attention given to budgetary procedure, corporate and individual income taxes, and the financial relations between federal and state governments. Prerequisite: Economics 187 or equivalent. 3 s.h.

Associate Professor Ratchford

- 237-238. Statistical Methods.—A study of statistical methods appropriate for dealing with problems in business and the social sciences. In addition to developing more thoroughly the subjects considered in Business Statistics, the following methods will be considered: simple, multiple, partial, and curvilinear correlation; curve fitting; probability; frequency distributions; and reliability of estimates. Prerequisite: Economics 138 or consent of the instructor. 6 s.h. Assistant Professor Springer
- 239. Prices.—A theoretical study of the forces governing price behavior and an historical examination of the fluctuations, disparities, and trends of European and American prices, particularly in periods marked by acute monetary disorder or by rapid change in the stock of the precious metals. Special attention will be devoted to post-war inflation in France and Germany and to the world-wide collapse of prices after 1929. 3 s.h. PROFESSOR HAMILTON
- 241-242. Value and Distribution.—This course is a critical survey of the leading contemporary explanations of price formation and of the determination of interest, rent, wages, and profits. 6 s.h. Professor Spengler

[Only 242 offered in 1941-42]

245. Problems of Modern Industrialism.—This course first surveys technological efficiency and market organization as limiting factors in the deter-mination by industrial management of the rational requirements of plant organization. External political and social forces are then introduced into the complex to show modern industrialism as a phase of mature capitalism. Against the background of modern capitalism, the issue and trends of public policy with respect to economic organization in America and Europe are compared and appraised, and the lessons of the Temporary National Economic Committee Hearings on Industry are evaluated. 3 s.h.

PROFESSOR VON BECKERATH

- 253. Labor Problems.—An examination of present-day labor problems followed by an intensive study of methods used by employers and workers in meeting those problems. 3 s.h.

 Associate Professor de Vyver
- 256. Labor Legislation.—A study of the relations of the state to labor problems with special reference to remedial legislation, to interference in labor disputes, and to social insurance. 3 s.h. Associate Professor de Vyver
- 260. Social Insurance.—A consideration of the economic and social problems involved in workmen's compensation laws, unemployment insurance, oldage pensions, and health insurance for workers. Particular attention will be given to the present federal and state social security legislation. 3 s.h.

[Not offered in 1941-42] Associate Professor de Vyver

265. International Trade and Tariff Policies.—An analysis of the theoretical principles underlying international trade with an historical study of the foreign trade and tariff policies of the United States, France, Germany, and England from the eighteenth century to the present. 3 s.h.

Professor von Beckerath

266. International Finance.—A study of the mechanism of international payment with attention to international movements of capital, the peculiarities of an inconvertible paper money regime, and related problems. 3 s.h.

[Not offered in 1941-42] Professor Hamilton

268. Competitive versus Monopolistic Enterprise.—(1) Competition as an economic order; (2) competition as a political order; (3) monopoly as a disturbance of (1) and of (2). (4) What can government do for the maintenance of the competitive order? (5) What can the judiciary do for the maintenance of the competitive order? (6) What can business do for the maintenance of the competitive order? (7) Limits and difficulties of a liberal solution. (8) Short discussion of different types of compromise solutions, both in the governmental and the economic field. 3 s.h.

Professor von Beckerath

- 270. Economics of War.—A study of the economic causes of war; the economic problems of neutrals; transition from a peace to a war economy; the cost of war and national defense; war finance through taxes, loans, and inflation; price and wage controls; rationing and priorities; the allocation of labor and resources; restrictions on shipping and exchange; the technique and results of economic warfare; war and technology; demobilization and unemployment; the return to a peace economy; debts, reparations, and indemnities; and post-war depressions. 3 s.h.

 Professor Hamilton
- 275-276. Advanced Industrial Accounting and Management.—This course traces the ways and means of executive control through statistics and industrial accountancy. Emphasis is put upon the economics of overhead costs. A complete practice set of cost accounting is worked by each student during the course. Courses 57-58 and 105 are ordinarily prerequisites for this course. 6 s.h.

 ASSOCIATE PROFESSOR BLACK

[Not offered in 1941-42]

FOR GRADUATES

311-312. History of Political Economy.—This course traces the development of economic theory, giving special attention to the various schools of economic thought in England, France, Germany, and the United States. A

large amount of collateral reading in the works of typical authors is required. Lectures and class discussions. 6 s.h.

Professor Hamilton

- 313-314. Seminar in Economic Theory.—The course consists of directed research in economic theory. The primary purpose is the correction of authoritative eclecticism and its replacement by individually integrated theory. Prerequisite: Economics 241-242 or its equivalent. 6 s.h.

 PROFESSOR HOOVER
- 315. Economic Systems.—A study of alternative economic systems. In addition to an analysis of communism, anarchism, and the variants of socialism, the course will include a consideration of other proposed modifications of the existing economic order. Credit for this course will be given only if the student takes Economics 316. 3 s.h.

 PROFESSOR HOOVER
- 316. Economic Functions of the State.—A consideration of the primary and secondary economic functions of government and of the legislation which provides for the performance of these functions, such as social legislation and the regulation of commerce and industry. Prerequisite: Economics 315 or its equivalent. 3 s.h.

 PROFESSOR HOOVER
- 318. General Seminar in Economics.—All graduate students with economics as a major subject are members of this seminar. Reports of progress in research will be made, and there will be lectures and critical discussion by members of the Department. Year course. No credit.

RELATED COURSES IN OTHER DEPARTMENTS

Attention is called to the following courses in related departments:

Forestry 279. Economics of Forestry.-3 s.h.

Associate Professor Thomson

History 219-220. The History of the European Proletariat.—6 s.h.
[Not offered in 1941-42] Professor Carroll

Political Science 207. American Constitutional Law and Theory.—3 s.h.

Professor Wilson

EDUCATION

PROFESSOR HOLTON, CHAIRMAN—104 PAGE AUDITORIUM; PROFESSOR BROWNELL,
DIRECTOR OF GRADUATE STUDIES—1C WEST DUKE BUILDING; PROFESSORS
CARR, CHILDS, AND PROCTOR; ASSOCIATE PROFESSOR SCATES;
ASSISTANT PROFESSOR EASLEY*

The Department offers a full major of work in educational psychology toward the degree of Doctor of Philosophy, with approved minors in as many as two of the divisions listed for the Master's degree, and an approved minor in psychology or in some other department offering work closely related to the thesis problem of the candidate. It is planned to offer complete majors in other divisions as rapidly as the growth of the Department justifies.

The Department offers work toward the Master of Arts and Master of

The Department offers work toward the Master of Arts and Master of Education degrees, and minor work toward the Doctor of Philosophy degree, in the divisions of elementary education, experimental education and educational psychology, history and philosophy of education, public school administration, and secondary education and educational sociology. It is important for students who are degree candidates to choose their course according to some unified plan; they are reminded that mere accumulation of more or less unrelated courses in various divisions with minor work in some department only remotely related to the student's major work does not lead to a graduate

^{*} Absent on leave, first semester, 1941-42.

degree. Every candidate for a Master's degree should elect at least six, and preferably twelve, semester hours of course work in the special division in which he intends to write his thesis. Students who expect to write theses in the history of education are required to take their minor work in American history. Students writing in school administration are advised to elect minor work in economics and political science. Students in educational psychology should elect their minor work in psychology. No student, except by special approval of the Department and of the Graduate School, is permitted to take minor work in more than one department or to the amount of more than six semester hours.

ELEMENTARY EDUCATION

FOR SENIORS AND GRADUATES

- 207. Technique of Teaching.—An advanced course in the teaching process, dealing with the theory underlying sound technique and applied specifically to the work of the elementary school. 3 s.h. (E)

 Professor Carr
- 212. Psychology of the Elementary School Subjects.—A study of the psychology of learning as applied to teaching the common school subjects. 3 s.h. (E)
 [Not offered in 1941-42]
 PROFESSOR CARR
- 222. The Curriculum and Materials of the Elementary Grades.—A study of curriculum problems in the elementary schools. First semester. 3 s.h. (E)

 PROFESSOR CARR
- 232. Elementary School Supervision.—A survey of supervision as a means of improving instruction and adapting the curriculum to child and community needs. 3 s.h. (E)

 PROFESSOR CARR

EXPERIMENTAL EDUCATION AND EDUCATIONAL PSYCHOLOGY

FOR SENIORS AND GRADUATES

- 208. Mental Tests and Applications.—A study of the development of intelligence testing, the concept of general intelligence, various recent applications of mental tests, and training in the giving of individual tests. Prerequisite: course 258 or six semester hours of other work in educational psychology or psychology. 3 s.h. (E)

 Assistant Professor Easley
- 209. Statistical Methods Applied to Education.—A study of statistical methods of treating educational and social data designed to enable teachers or administrators to interpret and use the results of scientific investigations in education. 2 s.h. (E)

 ASSOCIATE PROFESSOR SCATES
- 216. Psychological Principles of Secondary Education.—A study of adolescence and the psychology of learning as applied to teaching the principal high-school subjects. 3 s.h. (E)

 Professor Childs
- 217. Advanced Educational Psychology.—A systematic survey of the field of educational psychology, required of all majors in that field. 3 s.h. (E)

 PROFESSOR BROWNELL
- 218. Educational Implications of Genetic Psychology.—A study of the development of the individual through the stages of growth and learning, with emphasis upon early and later childhood; the development of such behavior patterns as play, language, etc.; the process of socialization, etc. Prerequisite: six semester hours of psychology or educational psychology. 3 s.h. (E)

[Not offered in 1941-42] Professor Brownell

- 219. Experimental Education.—This course is designed to provide training (1) in planning, (2) in prosecuting, and (3) in reporting quantitative investigations in the field of education, more especially in the field of learning and teaching the various school subjects. 3 s.h. (E)

 PROFESSOR BROWNELL
- 227. The Psychology of Learning: Problems.—The major problems related to the learning process will be examined, with the experimental literature bearing on them. The curves of learning and forgetting, the distribution of practice, economical methods of learning, and the transfer of training will be the major topics considered. Second semester. 3 s.h. (E)

Assistant Professor Easley

228. The Psychology of Learning: Theoretical and Experimental.—This is a continuation of course 227. In this semester the laws of learning, the most important explanatory principles, and the major systems of psychology of learning will be considered. Class experiments will run throughout the semester. Prerequisite: course 227 or its equivalent. 3 s.h. (E)

ASSISTANT PROFESSOR EASLEY

237. Investigations in Reading.—A summary of the results of the more important scientific studies in reading; interpretation of the results in terms of aims, methods, materials of instruction, testing diagnosis, and supervision; emphasis on problems requiring further investigation. 3 s.h. (E)

[Not offered in 1941-42] Professor Carr

- 247. Investigations in Arithmetic.—An analytical survey of investigations in arithmetic, with three purposes in view: (1) to examine the techniques employed with respect to their adequacy as means of solving the problems attacked; (2) to test the validity of the results announced and the values of these results for the teaching of arithmetic; (3) to locate further problems in arithmetic in need of scientific research. 3 s.h. (E)

 PROFESSOR BROWNELL
- 258. Educational Measurements.—A critical study of the principles and techniques involved in measurement in education, with opportunity for individual research. Prerequisite: twelve semester hours in the Department, including a course in educational psychology. 3 s.h. (E)

ASSOCIATE PROFESSOR SCATES

FOR GRADUATES

- 307-308. Seminar in Educational Psychology.—Required of graduate students in educational psychology. 4 s.h. (E)
 - Professor Brownell and Assistant Professor Easley
- 309-310. Research in Educational Psychology.—This course provides opportunity for more advanced graduate students to engage in individual research projects under close supervision. Credit allowed proportionate to achievement and time devoted to the course. Enrollment by permission of instructor only. 3 to 6 s.h. (E)

 Professor Brownell.
- 320. Advanced Educational Statistics.—This course continues the work begun in Education 209, dealing particularly with further methods of correlation and with various applications to the theory of measurement. The course does not require a background of mathematics beyond high-school algebra.

 3 s.h. Associate Professor Scates
- 338. Research in Reading.—A course designed for students who have original problems in reading which they desire to investigate. Such studies may be either individual or co-operative. Education 237 is advised as a preliminary course, but is not required. 3 s.h.

 PROFESSOR CARR

[Not offered in 1941-42]

- 339. Research Course in Educational Tests.—A study of problems in the construction and interpretation of tests. Prerequisite: the equivalent of course 258. 3 s.h.

 ASSOCIATE PROFESSOR SCATES
- 348. Research in Arithmetic.—A course designed for students who have original problems in arithmetic which they desire to investigate. Such studies may be either individual or co-operative. Education 247 is advised as a preliminary course, but is not required. 3 s.h.

 PROFESSOR BROWNELL

HISTORY AND PHILOSOPHY OF EDUCATION

FOR SENIORS AND GRADUATES

- 200. Introduction to the Philosophy of Education.—A consideration of fundamental concepts underlying educational theory. 3 s.h. Professor Holton [Not offered in 1941-42]
- 214. History of Education in the United States.—A study of the development of the American public school and the interaction of higher education and the public school. 3 s.h.

 [Not offered in 1941-42]
- 244. Studies in the Historical Development of Public School Administration.—An advanced course devoted to the development of public school administration in the South, with especial reference to North Carolina as a type, 3 s.h.

 PROFESSOR HOLTON

[Not offered in 1941-42]

- 254. History of Secondary Education in the United States.—A study of historical and comparative conceptions of the secondary school, changes in American life affecting the secondary school, present status of the secondary school, current tendencies toward expansion, and the problem of state and federal aid. First semester. 3 s.h.

 PROFESSOR PROCTOR [Not offered in 1941-42]
- 264. Recent Movements in American Education.—An intensive study of educational thought and practice since 1900. 3 s.h. Professor Holton
- 294. Comparative Education: Recent Movements in European Educational Systems.—A comparative study of the school systems of the principal countries of Europe, with emphasis upon changes since the World War. 3 s.h.

 [Not offered in 1941-42]

 Professor Carr

PUBLIC SCHOOL ADMINISTRATION

FOR SENIORS AND GRADUATES

- 203. Principles of School Administration.—The fundamental facts and procedures of school administration, an analysis of the problems and policies of the organization and direction of a local school system, and the functions of the various school officials. Prerequisite: Education 103 and 58, or six semester hours of equivalent work in education. 3 s.h.

 PROFESSOR PROCTOR
- 233. Administrative Pupil-Accounting.—An advanced study of gradation and classification of pupils, with incidental attention to the keeping of records and the making of reports. The study includes a consideration of individual differences, promotions, acceleration, and retardation of pupils; the various plans for classification and gradation; interpreting the results of tests; and some practice in the computation of statistical measures. 3 s.h.

[Not offered in 1941-42] Professor Proctor

234. Secondary School Organization and Administration.—A study of the outstanding problems of secondary school organization and administration other than the problem of gradation and classification of pupils. 3 s.h.

Professor Proctor

253. Legal Phases of School Administration.—A study of judicial decisions and the development of outstanding features of statute law controlling school administration, with special emphasis upon North Carolina materials. PROFESSOR HOLTON

[Not offered in 1941-42]

FOR GRADUATES

323. Public School Finance.—A study of educational costs, sources of revenue for the support of public education, collection of revenue, basis of distribution, and accounting for funds spent. Second semester. 3 s.h.

[Not offered in 1941-42] Professor Proctor

- 343. State and County School Administration.-A study of state and county organization of public schools, emphasizing underlying principles. Sec-Professor Proctor
- 363. City School Administration.—A study of the organization and administration of city school systems, including administrative phases of super-PROFESSOR PROCTOR vision. 3 s.h.

SECONDARY EDUCATION AND EDUCATIONAL SOCIOLOGY

FOR SENIORS AND GRADUATES

- 205. Curriculum Problems in Secondary Education.—A consideration of the aims and objectives of secondary school subjects, emphasizing practical problems of curriculum-making in the high school. 3 s.h. Professor Childs [Not offered in 1941-42]
- 206. Sociological Foundations of the Secondary School Subjects.-A consideration of the aims and objectives of the secondary school. Prerequisite: six semester hours in education, including course 105. 3 s.h. (E) [Not offered in 1941-42] Professor Childs
- 215. Educational and Vocational Guidance.—A survey of the literature on guidance with special reference to secondary education; a critical study of the principles and techniques used in guidance; an attempt to locate the problems most urgently in need of solution. Prerequisite: twelve semester hours in the Department, including course 105 or course 206. 3 s.h. (E) Professor Childs
- 225. The Teaching of History and the Social Studies.—Identical with History 211. The course counts as an elective in the Department of Education only when approved by the Department and the instructor. 3 s.h. Assistant Professor Manchester

- 246. The Teaching of Mathematics.—Identical with Mathematics 204. The course counts as an elective in the Department of Education only when approved by the Department and the instructor. 3 s.h. (E) PROFESSOR RANKIN [Not offered unless justified by enrollment]
- 266. The Teaching of High-School French.—Identical with French 218. PROFESSOR WEBB First semester. 3 s.h.

58 Education

METHODOLOGY OF RESEARCH

FOR GRADUATES

300. Methods of Educational Research: Seminar.—Graduate students are instructed in methods of research as applied to selected educational problems. Each student must select for intensive study and practice a subject in which he is interested. 3 s.h.

Members of the Department

RELATED COURSES IN OTHER DEPARTMENTS

FOR MAJORS IN EDUCATIONAL PSYCHOLOGY, ELEMENTARY EDUCATION AND SECONDARY EDUCATION

Psychology 206. Social Psychology.—3 s.h. Associate Professor Adams

Psychology 209. Experimental Methods in Human Psychology.—4 s.h.

ASSOCIATE PROFESSOR ZENER

Psychology 211. Physiological Psychology.-3 s.h.

Assistant Professor Kemp

Psychology 215. Developmental Psychology.-3 s.h.

ASSOCIATE PROFESSOR ADAMS

Psychology 226. Contemporary Schools of Psychology.—First semester. 3 s.h. Associate Professor Zener

[Not offered in 1941-42]

Psychology 306. Seminar in Child Psychology.-2 or 3 s.h.

Associate Professor Adams

Psychology 309. Theory of Learning.—3 s.h. Associate Professor Adams [Not offered in 1941-42]

Sociology 212. Child Welfare.—3 s.h. [Not offered in 1941-42]

Professor Jensen

Sociology 213. Constructive Social Policies.—2 s.h. Professor Jensen [Not offered in 1941-42]

Sociology 232. Cultural Anthropology.—3 s.h. Associate Professor Gillin

Sociology 319. Principles of Sociology.—3 s.h. Professor Ellwood

Sociology 320. History of Social Philosophy.—3 s.h. Professor Ellwood

FOR MAJORS IN PUBLIC SCHOOL ADMINISTRATION

Economics 230. Public Debts in the United States.—3 s.h.

Associate Professor Ratchford

Political Science 209. State and Local Government in the United States.—
3 s.h.
PROFESSOR RANKIN

Political Science 291. Municipal Government.—3 s.h. Professor Rankin

Sociology 213. Constructive Social Policies.—2 s.h. Professor Jensen [Not offered in 1941-42]

FOR MAJORS IN HISTORY AND PHILOSOPHY OF EDUCATION

History 209-210. Constitutional History of the United States, 1763-1860.—6 s.h.

[Not offered in 1941-42]

Assistant Professor Still

English 59

Philosophy 205. The Philosophy of History.—3 s.h. Professor Widgery [Not offered in 1941-42]

Philosophy 208. Political Philosophy.—3 s.h. Associate Professor Morgan

Philosophy 223. Contemporary Philosophy.—Second semester. 3 s.h.
[Not offered in 1941-42] Professor Widgery

Religion 291. Christian Ethics .- 3 s.h.

PROFESSOR SMITH

Religion 393-394. Religious Thought in the Rise of American Culture.— 6 s.h. $Professor \, Smith$

Sociology 319. Principles of Sociology.—3 s.h.

PROFESSOR ELLWOOD

Sociology 320. History of Social Philosophy.—3 s.h. Professor Ellwood

ENGLISH

PROFESSOR BROWN, CHAIRMAN—204 GRAY; PROFESSOR WHITE, DIRECTOR OF GRADU-ATE STUDIES—401 LIBRARY; PROFESSORS BAUM, GILBERT,* GOHDES, HUBBELL, AND IRVING; ASSOCIATE PROFESSOR ANDERSON; ASSISTANT PROFES-SORS ALLEN AND WARD

All graduate students in English must pass a general examination before they will be admitted to candidacy for a degree. This examination is given at the beginning of the autumn semester and must be taken at that time by all new students. Those who do not pass will not be accepted as candidates for a degree during the year in which they fail, but they may take the examination offered to graduate students entering at the opening of the first term of the following Summer School.

201-202. Anglo-Saxon.—The first half of the year is given to the reading of prose and to a study of the language; the second half, to the reading of Beowulf. 6 s.h.

PROFESSOR BROWN

203-204. Chaucer.—The work consists of the reading and study of the principal Canterbury Tales, the Troilus, the minor poems, and some of the translations. Students prepare a reading report and a term paper. 6 s.h.

Professor Baum

207-208. English Literature, 1400-1550.—6 s.h. [Not offered in 1941-42]

PROFESSOR BAUM

209-210. English Literature other than Drama, 1625-1700.—6 s.h.

Assistant Professor Ward

211-212. English Literature other than Drama, 1550-1625.—6 s.h.
[Not offered in 1941-42] Assistant Professor Allen

213-214. Folk-Lore and Folk-Songs.—The course consists of an extensive study during the first semester of the field of folk-lore and during the second semester, of the ballad and of other folk-songs. 6 s.h. Professor Brown

215-216. Elizabethan Drama.—6 s.h. Assistant Professor Allen

217. Spenser.—In this course students make a detailed study of Spenser's work, giving special attention to the major poems. There are frequent written reports and one term paper. Second semester. 3 s.h.

ASSISTANT PROFESSOR ALLEN

^{*} Absent on leave, second semester, 1941-42.

60 English

218. Milton.—A detailed study of Milton's prose and poetry with emphasis on the major poems constitutes the work of the course. There are frequent written reports and a term paper. First semester. 3 s.h. Professor Gilbert

219-220. English Literature of the Eighteenth Century.—The prose and poetry of the Age of Pope are reviewed in the first semester, of the Age of Johnson in the second. Term papers are required. 6 s.h. Professor Irving [Not offered in 1941-42; 349g-350g offered instead]

227-228. Literary Criticism.—The work of the course consists of a study of the history of literary criticism from Aristotle to the present. There are oral and written reports and a term paper. 6 s.h.

[Only 227 offered in 1941-42]

229-230. American Literature, 1800-1870.—A survey of the principal writers of the period. There are term papers and two oral reports each semester. Seniors must have credit for English 137-138 or its equivalent. 6 s.h.

PROFESSOR HUBBELL AND ASSOCIATE PROFESSOR ANDERSON

231. Special Studies in Emerson.—3 s.h.

Professor Gohdes

233-234. American Literature since 1870.—6 s.h.

Professor Gohdes and Associate Professor Anderson

239-240, Shakespeare Problems.—6 s.h. [Not offered in 1941-42]

Professor Brown

269-270. Southern Literature and Culture.—6 s.h. Professor Hubbell [Only 269 offered in 1941-42]

303-304. Studies in Elizabethan Literature.—6 s.h. Professor Gilbert [Only 303 offered in 1941-42]

307-308. Southern Literature and Culture in the United States.—6 s.h.
[Not offered in 1941-42] Professor Hubbell

313-314. Studies in the Romantic Writers of the Early Nineteenth Century.—6 s.h.

Professor White

315-316. Middle English.—3 s.h. (1½ s.h. each term.) Professor Baum

317-318. Studies in Victorian Literature.—6 s.h. Professor Baum [Only 317 offered in 1941-42; 349d-350d offered instead.]

349-350. Research Courses .-- 6 s.h.

Students who wish to elect one of these as a seminar course should consult the Director of Graduate Studies as early as possible.

In 1941-42 (d), (g), and (i) are offered.

(a) Folk-Lore and the Ballad.

Professor Brown

(b) Shakespeare Problems.

Professor Brown

(c) English Language and Literature, 1200-1550.

PROFESSOR BAUM

(d) Victorian Literature.

PROFESSOR BAUM

(e) Elizabethan and Seventeenth-Century Literature. P

PROFESSOR GILBERT

(f) Literary Criticism.

PROFESSOR GILBERT

(g) The Eighteenth Century.

Professor Irving

(h) The Romantic Movement.

PROFESSOR WHITE

(i) American Literature.

PROFESSORS HUBBELL AND GOHDES

Forestry 61

RELATED COURSES IN OTHER DEPARTMENTS

The attention of students of English is directed to the following courses:

German 301-302. Gothic-Middle High German .-- 6 s.h.

PROFESSOR VOLLMER

Greek 201-202. Greek Tragedy.-6 s.h.

PROFESSOR PEPPLER AND ASSISTANT PROFESSOR WAY

History 221-222. The Age of the Renaissance.-6 s.h.

[Not offered in 1941-42] Associate Professor Nelson

History 223-224. Medieval Institutions and Culture.—6 s.h.

[Not offered in 1941-42] Assistant Professor Quynn

Philosophy 201-202. The Philosophy of Art.-6 s.h. (E) PROFESSOR GILBERT

Philosophy 213-214. History of Aesthetics.—6 s.h. (E) PROFESSOR GILBERT [Not offered in 1941-42]

Psychology 202. Psychology of Aesthetics.—3 s.h. Professor Lundholm [Not offered in 1941-42]

FORESTRY

PROFESSOR KORSTIAN, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES—FEW QUADRANGLE, HOUSE GG-010; PROFESSORS BEAL, SCHUMACHER, AND WOLF; ASSOCIATE PROFESSORS HARRAR, KRAMER, MAUGHAN, AND THOMSON; ASSISTANT PROFESSOR COILE

Major and minor work is offered in the more scientific aspects of forestry leading to the Master of Arts and Doctor of Philosophy degrees to students who have received degrees from professional schools of forestry of recognized standing or from approved colleges or universities. Work for these degrees may be pursued only in forest-tree physiology, wood anatomy and properties, forest pathology, silvics, forest soils, forest mensuration, forest management, forest entomology, and forest economics, except that a major cannot be taken in forest management. College graduates who have had specialized training in botany or soil science and in allied basic subjects, such as physics, chemistry, geology, and zoology, may pursue graduate study and research only in the specialized fields for which their previous work has qualified them. Students who do not have previous training in forestry will be required to complete a minimum of thirty semester hours of approved work in the Division of Forestry as a preliminary requirement for admission to candidacy for the A.M. and Ph.D. degrees. These men will not be regarded as professionally trained foresters. For information on professional training in forestry, see Bulletin of the School of Forestry.

FOR SENIORS AND GRADUATES

- 224. Forest Pathology.—Special reference to diseases of forest trees. Prerequisites: Botany 1 and 2, and Forestry 253-254, or equivalents. 4 s.h.

 Professor Wolf
- 231. Forest Entomology.—Morphology, general classification, life histories, and control of insects injurious to forest trees, logs, and lumber. 3 s.h.

 Professor Beal
- 251. Sampling Methods in Forestry.—Statistical background for solution of sampling problems with special reference to sample inventory of a forest property. Prerequisite: Forestry S151. 2 s.h. Professor Schumacher

252. Forest Mensuration.—Empirical equations and curve fitting appropriate for construction of timber yield tables, tree volume and taper tables; significance tests and graphical solution of equations. Assignments require operation of calculating machines. Prerequisite: Forestry 251. 2 s.h.

PROFESSOR SCHUMACHER

253-254. Dendrology.—Nomenclature, classification, and identification of woody plants with special reference to species indigenous to southeastern United States and other important forest regions of temperate North America. Laboratory and field work. Prerequisite: one year of botany. 4 s.h.

Associate Professor Harrar

257. Design of Forestry Experiments and Analysis of Data.—Role of experimental design in field and laboratory, and statistical analysis of data as aspects of scientific method in forest research. 5 s.h.

PROFESSOR SCHUMACHER

259. Wood Anatomy and Properties.—Anatomical, chemical, and non-mechanical physical properties of wood; macroscopic and microscopic identification of more important woods of the United States. Prerequisites: One year of botany and Chemistry 1 and 2, or equivalents. 3 s.h.

Associate Professor Harrar

261. Forest Soils.—Origin, development, and classification of soils with special emphasis on those developed in climates supporting forests; morphological, physical, and chemical properties of soils in relation to growth of trees; field identification, field sampling, laboratory analysis, and interpretation of field and laboratory observations; interrelationships of soil and forest cover. Prerequisites: Chemistry 1 and 2, and Physics 1, or equivalents; physical geology and analytical chemistry are also desirable. 3 s.h.

Assistant Professor Coile

- 264. Silvics.—Ecological foundations of silviculture with special reference to forest site factors; influence of forests on their environment; growth and development of trees and stands; origin, development, and classification of forest communities; methods of studying forest environments. Desirable prerequisites: Plant physiology, plant ecology, and Forestry 253-254 and 261, or equivalents. 3 s.h.

 PROFESSOR KORSTIAN
- 276. Forest Policy.—Critical study of forestry movement and development of a forest policy, particularly in the United States; brief résumé of forestry in important foreign countries; public land laws of the United States; development of federal and state forestry; forestry laws. 2 s.h.

Associate Professor Thomson

279. Economics of Forestry.—Principles of forest economics. Economic and social values of forests; forest resources and wood requirements; economics of wood production and consumption; prices of forest products; forestry and public finance; forestry and land use; forestry credit; forest fire insurance; forestry as a private business enterprise. Prerequisite: at least one course in the principles of economics. 3 s.h.

Associate Professor Thomson

FOR GRADUATES

- 323-324. Advanced Forest Pathology.—Advanced study and research on life histories and control of diseases of forest trees to meet individual needs of graduate students. Prerequisites: plant physiology and forest pathology. Credits to be arranged.

 PROFESSOR WOLF
- 351-352. Advanced Physiology of Forest Trees.—Advanced study and research on problems in physiology of forest trees to meet individual needs of graduate students. Prerequisites: plant physiology and plant ecology or silvics. Credits to be arranged.

 Associate Professor Kramer

- 354. Forest Soil Fertility.—Experimental approach to the problems of fertility in forest soil. Influence of stand composition on nitrogen transformation. Methods of studying the exchange complex and the significance of base exchange in forest soil fertility. Prerequisites: Forestry 251 and 261, and plant physiology, or equivalents; bacteriology and analytical and organic chemistry are desirable. 3 s.h.

 Assistant Professor Coile
- **356. Economic Forces in Forestry.**—Analysis of classical and contemporary theories of forest valuation. Principles underlying the measurement of forces determining forestry values. Prerequisites: Forestry 279 and 282, or equivalents; courses in economic theory are desirable. 2 s.h.

Associate Professor Thomson

- **357-358.** Research in Forestry.—Credits to be arranged. Students who have had adequate training may do research under direction of members of the Faculty in the following branches of forestry:
 - a. Silvics.—Prerequisites: Forestry 253-254, 261, and 264, or equivalents.

 Professor Korstian
 - b. Forest Soils.—Prerequisite: Forestry 261 or equivalent.

 Assistant Professor Coile
 - d. Forest Management.—Prerequisite: Forestry 281 or equivalent.

 Associate Professor Maughan
 - e. Forest Economics.—Prerequisite: Forestry 279 or equivalent.

 Associate Professor Thomson
- f. Wood Anatomy and Properties.—Prerequisites: Forestry 259 and 260, or equivalents.

 Associate Professor Harrar
- g. Forest Mensuration.—Prerequisites: Forestry S151, 251, and 252, or equivalents.

 Professor Schumacher
 - h. Forest Entomology.—Prerequisite: Forestry 231 or equivalent.

 Professor Beal

GERMANIC LANGUAGES AND LITERATURE

PROFESSOR VOLLMER, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES—205 PAGE AUDITORIUM; PROFESSOR KRUMMEL

FOR SENIORS AND GRADUATES

- 201-202. Goethe.—A careful study of Goethe's life and works, with special emphasis upon the broader aspects of his ever-widening interests and literary activities. 6 s.h.

 PROFESSOR KRUMMEL
- 207-208. German Romanticism.—The course covers the entire field of German Romanticism from 1800 to 1850. 6 s.h.

 PROFESSOR VOLLMER
- 209-210. Kleist, Grillparzer, and Hebbel.—A study of the leading representatives of German drama in the first half of the nineteenth century. 6 s.h.

 [Not offered in 1941-42] Professor Krummel
- 211-212. Heinrich Heine and the Young German Movement.—A study of the German poet and his immediate successors in the movement known as Jungdeutschland. 6 s.h.

 [Not offered in 1941-42]
- 213-214. Literature of the Empire, 1871-1914.—A study of the literature of this period as determined particularly by the philosophical, social, political, and religious factors. 6 s.h. Professor Vollmer

64 History

FOR GRADUATES

301-302. Gothic—Middle High German.—In the first term the essentials of Gothic morphology, phonology, and grammar are investigated, and original Gothic literature is read. In the second term the leading medieval German epics are read in the original. 6 s.h.

PROFESSOR VOLLMER

303-304. German Seminar.—A seminar will be conducted in an eighteenth-or nineteenth-century field for properly qualified students.

PROFESSORS VOLLMER AND KRUMMEL

RELATED COURSES IN OTHER DEPARTMENTS

The following courses in other departments are recommended to students, who are majoring in Germanics, as particularly valuable in building a proper background for Germanic studies:

Certain graduate courses in literature or philology offered by the ancient and modern language departments, to be selected after consultation with the

German Department.

History 217-218. Europe since 1870.—6 s.h.

Professor Carroll

History 221-222. The Age of the Renaissance.-6 s.h.

[Not offered in 1941-42] Associate Professor Nelson

History 223-224. Medieval Institutions and Culture.-6 s.h.

[Not offered in 1941-42] Assistant Professor Quynn

History 225-226. The Age of the Reformation.-6 s.h.

[Not offered in 1941-42] Associate Professor Nelson

Philosophy 213-214. History of Aesthetics.—6 s.h. (E) PROFESSOR GILBERT [Not offered in 1941-42]

Philosophy 201-202. The Philosophy of Art.-6 s.h. (E)

PROFESSOR GILBERT

Philosophy 223. Contemporary Philosophy.—Second semester. 3 s.h.
[Not offered in 1941-42] Professor Wingery

Philosophy 244. Nietzsche and the Nineteenth Century.-3 s.h.

[Not offered in 1941-42] Associate Professor Morgan

Sociology 320. History of Social Philosophy.—3 s.h. Professor Ellwood

HISTORY

PROFESSOR LAPRADE, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES—2B WEST DUKE BUILDING; PROFESSORS CARROLL AND SYDNOR; ASSOCIATE PROFESSORS CLYDE, LANNING,* AND NELSON; ASSISTANT PROFESSORS MANCHESTER, QUYNN,† STILL, AND WOODY

AMERICAN HISTORY

FOR SENIORS AND GRADUATES

209-210. Constitutional History of the United States, 1763-1860.—A study of the Colonial foundations of American constitutional attitudes, the constitutional aspects of the American Revolution, the framing and ratification of the Constitution, the statehood process and the extension of democracy, the constitutional implications of sectional conflict, and the Supreme Court in its relation to the problems of an industrial America. Prerequisites: courses 91 and 92. 6 s.h.

Assistant Professor Still

[Not offered in 1941-42]

* Absent on leave second semester, 1941-42.

† Absent on leave, 1941-42.

HISTORY 65

215-216. History of the Foreign Relations of the United States.—This course traces the history of American diplomacy since 1789. 6 s.h.

ASSOCIATE PROFESSOR CLYDE

- 230. The Portuguese Empire and the Rise of Brazil.—The course will deal with Portuguese explorations, the establishment of the Portuguese Empire in the East, the transplanting of Portuguese culture overseas, and the rise of a native Brazilian civilization. 3 s.h. ASSISTANT PROFESSOR MANCHESTER
- 231. The Hispanic Colonies of the New World.—The development of the Iberian states as colonizing powers, the work of the conquerors, the Spanish colonial policy and system, their influences and results, native races, the international contest for supremacy, and the decay of Spanish power in America and the Philippines. 3 s.h. [Not offered in 1941-42] ASSOCIATE PROFESSOR LANNING

- 232. The Hispanic American Republics of the New World .- 3 s.h. [Not offered in 1941-42] ASSOCIATE PROFESSOR LANNING
- 233. The Cultural and Institutional History of Colonial Hispanic America.-3 s.h. ASSOCIATE PROFESSOR LANNING
- 234. Political and Social Problems in the Hispanic American Republics .-ASSOCIATE PROFESSOR LANNING 3 s.h.

[Not offered in 1941-42]

- 263-264. American Colonial History and the Revolution, 1606-1783.—The growth of institutions and economic life in the English colonies; the American Revolution. 6 s.h. ASSISTANT PROFESSOR WOODY
- 265-266. The Westward Movement in the United States.—A study of the progress of settlement from the Atlantic to the Pacific Coast with especial attention to the transmission of culture, developments in transportation, the transition from agrarian to urban communities, the process of state making, and the social, economic, and political effects of the westward march upon the United States as a whole. 6 s.h. ASSISTANT PROFESSOR STILL

FOR GRADUATES

- 304. The Union, Confederacy, and Reconstruction.—The growth of Southern nationalism, secession, the problems of the Union and Confederacy, and political and economic adjustments during Reconstruction. Year course. 4 s.h. Assistant Professor Woody
 - 315. Seminar in Southern History.—Year course. 2 s.h.

Professor Sydnor

- 321. Seminar in the History of Spain and the Spanish-American Colonies. Associate Professor Lanning -Year course. 2 s.h.
- 329. Historiography of the South.—Attention is given to the more important printed and manuscript sources and to the writings of the older historians. Bibliographical and research problems are introduced. Year course. Assistant Professor Woody 4 s.h.

[Not offered in 1941-42]

336. The South in Federal Politics, 1789-1860.—The interests and political actions of the South on such questions as public lands, internal improvements, foreign policy, the tariff, and slavery; the political techniques and theories of PROFESSOR SYDNOR the South. Year course. 4 s.h.

66 History

337. Social and Economic Life of the Old South.—Conditions and trends in the South in respect to population movements, transportation, agriculture, slavery, urban life, commerce, manufacturing, religion, education, and other intellectual activities. Year course. 4 s.h.

[Not offered in 1941-42]

EUROPE AND THE FAR EAST

FOR SENIORS AND GRADUATES

217-218. Europe since 1870.—International relations since the Franco-German War is the chief subject of study in this course; special emphasis is placed upon the underlying economic and political influences. 6 s.h.

Professor Carroll

219-220. The History of the European Proletariat.—This course is concerned chiefly with the origins, expansion, and organization of the industrial working classes of Europe. The following problems are emphasized: the decline of serfdom, the growth of an urban working class and social revolutions in England, France, and Germany prior to the eighteenth century, the results of the Industrial Revolution, and labor movements and theories during the nineteenth and twentieth centuries. 6 s.h.

PROFESSOR CARROLL

[Not offered in 1941-42]

221-222. The Age of the Renaissance.—The decline of characteristic features of medieval civilization and the rise of modern European institutions with particular attention to intellectual movements from Dante to Erasmus. 6 s.h.

Associate Professor Nelson

[Not offered in 1941-42]

223-224. Medieval Institutions and Culture.—A consideration of the classical heritage, the Germanic infusion, development of ecclesiastical, feudal, monarchical, and communal institutions, relations of Church and State, the rise of universities, vernacular literature, philosophy, and art, in the period 300-1300 A.D. 6 s.h.

Assistant Professor Quynn

[Not offered in 1941-42]

225-226. The Age of the Reformation.—A survey of European civilization from 1500 through the Peace of Westphalia. 6 s.h.

[Not offered in 1941-42]

ASSOCIATE PROFESSOR NELSON

241-242. Eastern Asia and the Pacific.—This course is concerned chiefly with the Westernization of China and Japan in the twentieth century, with emphasis on such topics as the conflict between Western and Eastern political institutions, the rise of modern industry in Japan, the political and social revolution in modern China, military socialism in Manchoukuo, the development of the Russian Far East, the conflict between Chinese nationalism and Japanese imperialism, and the status of Western colonies in the East, including the United States in the Philippines. 6 s.h.

Associate Professor Clyde

[Not offered in 1941-42]

FOR GRADUATES

305. Seminar in the History of England and the British Empire.—The work consists of practical training in the methods of historical research based on sources for modern British history. Year course. 2 s.h.

Professor Laprade

317. Seminar in Recent European History.-Year course. 2 s.h.

PROFESSOR CARROLL

325. British Nationality and Public Opinion.—A study of the various political and social groups that have contended for power in England since the sixteenth century and the methods they used. Year course. 4 s.h.

[Not offered in 1941-42] Professor Laprade

History 67

327. Modern Phases of the English Constitution.—A brief review of the medieval constitution, followed by a more intensive study of certain aspects of its development in the sixteenth, seventeenth, and eighteenth centuries. Year course. 4 s.h.

PROFESSOR LAPRADE

343. Seminar in the History of American Foreign Relations and the Far East.—Year course. 2 s.h.

Associate Professor Clyde

HISTORIOGRAPHY AND THE TEACHING OF HISTORY

FOR SENIORS AND GRADUATES

211. The Teaching of History and the Social Studies.—The work consists of a discussion of the question of aims and values in teaching history and civics, textbooks, programs of study, methods of instruction, the use of maps and pictures, the making of lesson plans for use in the high school, and other problems of high-school teaching. 3 s.h. Assistant Professor Manchester

FOR GRADUATES

320. Historiography.—A critical study of the process of finding, appraising, and interpreting the sources of history and of the presentation of the results in narrative. Works of important historians from Herodotus to the present are analyzed. The student undertakes specific exercises in research, criticism, and narration. There is consideration of such general topics as schools, theories, philosophies, and the function of history. Year course. 4 s.h.

ASSOCIATE PROFESSOR NELSON

This course is required of all candidates for the degree of Doctor of Philosophy who are in residence as many as two years at Duke University unless excused therefrom by the Department.

RELATED COURSES IN OTHER DEPARTMENTS

Economics 231. Economic History of Modern Europe.—3 s.h.

PROFESSOR HAMILTON

Economics 232. Economic History of the United States.-3 s.h.

Professor Hamilton

Economics 311-312. History of Political Economy.—6 s.h.

PROFESSOR HAMILTON

Economics 315. Economic Systems.-3 s.h.

Professor Hoover

Economics 316. Economic Functions of the State.—3 s.h.

Professor Hoover

Political Science 223. Political Thought to the Seventeenth Century.—
3 s.h. Professor Wilson

Political Science 224.—Modern Political Theory.—3 s.h.

PROFESSOR WILSON

Religion 309. History of the Ancient Near East—3 s.h.

ASSOCIATE PROFESSOR STINESPRING

Religion 393-394. Religious Thought in the Rise of American Culture.—6 s.h.

PROFESSOR SMITH

Sociology 237. Indians of North America.—3 s.h.

Associate Professor Gillin

Sociology 238. Anthropology of South America. - 3 s.h.

ASSOCIATE PROFESSOR GILLIN

Sociology 320. History of Social Philosophy.—3 s.h. Professor Ellwood

MATHEMATICS

PROFESSOR GERGEN, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES—03 GRAY;
PROFESSORS ELLIOTT, RANKIN, AND THOMAS; ASSOCIATE PROFESSORS
CARLITZ AND ROBERTS; DRS. BOAS AND DRESSEL

The Department offers basic courses in each of the main divisions of

mathematics: algebra, analysis, geometry, and applied mathematics.

The Master's degree with major in mathematics is awarded primarily on the basis of scholarship. The candidate's preliminary mathematical work must be approved by the Department through the Director of Graduate Studies. It must include differential and integral calculus and an additional six semester hours of work in mathematical courses of at least Junior level. Eighteen of the twenty-four semester hours of course work required by the general regulations for the degree must be taken in the Department.

The Doctor's degree with major in mathematics is awarded as a recognition of potential ability and training in research. The original dissertation is the most important of the formal requirements for it. A candidate should have this requirement in mind from the outset and plan his courses accordingly.

Because of the important mathematical literature in French and German, all students taking graduate work in mathematics should have a practical reading knowledge of these languages near the beginning of their graduate study.

FOR SENIORS AND GRADUATES

- 201. History of Mathematics.—Evolution of the number system, arithmetic, geometry, algebra, trigonometry, analytic geometry, calculus, and modern geometry. Brief sketches of mathematicians. Offered in alternate years. Prerequisite: differential calculus. 3 s.h.

 PROFESSOR RANKIN
- 204. Teaching of Mathematics.—Fundamental processes, methods of study, mathematical literature, content of courses, applications, use of instruments, correlation of different branches. Offered in alternate years. Must be preceded or accompanied by integral calculus. 3 s.h.

 PROFESSOR RANKIN
- 225. Theory of Equations.—Permutations, determinants, matrices, linear systems, polynomials and their roots, constructibility, resultants, discriminants, simultaneous equations. Second semester. Prerequisite: differential calculus. 3 s.h.

 PROFESSOR THOMAS
- 227-228. Theory of Numbers.—Congruences, arithmetic functions, compound moduli, quadratic reciprocity, Gauss sums, quadratic forms, sums of squares. Prerequisite: integral calculus. 6 s.h. Associate Professor Carlitz [Not offered in 1941-42]
- 229-230. Algebraic Numbers.—Ideals, unique factorization, divisors of the discriminant, determination of the class number. Prerequisite: Mathematics 225. 6 s.h.

 Associate Professor Carlitz

[Not offered in 1941-42]

235-236. Modern Algebra.—Groups, fields, rings, matrices, quadratic and bilinear forms, general Galois theory, hypercomplex systems. Prerequisite: differential calculus. 6 s.h.

[Not offered in 1941-42]

255-256. Projective Geometry.—Postulational, synthetic treatment centering around Desargues' theorem and the principle of projectivity. Conics, coordinates, order, continuity, metric properties. Prerequisite: differential calculus. 6 s.h.

[Not offered in 1941-42]

- 271-272. Introductory Topology.—Topological properties of Euclidean spaces; set-theoretic and combinatorial methods. Prerequisite: integral calculus. 6 s.h.

 ASSOCIATE PROFESSOR ROBERTS
- 275. Probability.—Combinatory analysis, mean values, Bernoulli's theorem, probability integral. Applications to statistics. Prerequisite: integral calculus. 3 s.h.

culus. **3 s.h.**[Not offered in 1941-42]

- 281. Elementary Potential Theory.—Newtonian potentials, vector fields, Dirichlet and Neumann problems. Prerequisite: integral calculus. 3 s.h. [Not offered in 1941-42]
- 282. Differential Equations of Mathematical Physics.—Hamilton-Jacobi equation, heat equation, wave equation, telegraphic equation, Schrödinger's equation. Prerequisite: integral calculus. 3 s.h.

[Not offered in 1941-42]

- 283. Fourier Series and Spherical Harmonics.—Fourier series and integrals, Legendre polynomials, spherical harmonics, Bessel functions. Applications to mathematical physics. Second semester. Prerequisite: integral calculus. 3 s.h.

 DR. DRESSEL
- 284. Vector Analysis.—Vectors in three-dimensional Euclidean space with applications to physics; introduction to tensor analysis. First semester. Prerequisite: integral calculus. 3 s.h.

 PROFESSOR THOMAS
- 287. Mathematical Logic.—Boole-Schroeder algebra of logic, system of Principia Mathematica, strict and material implication. 3 s.h.
 [Not offered in 1941-42]
- 288. Foundations of Mathematics.—Postulates for groups, fields, rings, Boolean algebras. 3 s.h.
 [Not offered in 1941-42]
- 291-292. Theory of Functions.—Fundamental concepts in the theory of functions of real and complex variables. Limits, continuous functions, Riemann integrals, implicit functions, power series, double series, linear transformations, elementary functions, Cauchy's theorem and its applications, entire functions, residues, Riemann surfaces, conformal mapping. Prerequisite: second course in calculus. 6 s.h.

 PROFESSOR GERGEN

FOR GRADUATES

325-326. Real Variable.—The number system; theory of sets; transfinite numbers: Baire classes; Lebesgue, Stieltjes, Denjoy integrals and their applications; linear operations. Prerequisite: Mathematics 291-292. 6 s.h.

[Not offered in 1941-42]

- 331-332. Complex Variable.—Analytic continuation, conformal mapping and its applications, univalent functions, meromorphic functions, analytic functions of several complex variables. Prerequisite: Mathematics 291-292. 6 s.h. [Not offered in 1941-42]
- 333-334. Analytic Theory of Numbers.—Distribution of primes; primes in an arithmetic progression; Waring and Goldbach problems. Prerequisite: Mathematics 291-292. 6 s.h. Associate Professor Carlitz
- 337-338. Existence Theorems.—Systems of partial differential equations; Pfaffian systems; theorems of Cauchy, Riquier, and Cartan; singular integral varieties. Prerequisite: Mathematics 291-292. 6 s.h. Professor Thomas [Not offered in 1941-42]

341-342. Integral Equations.—Volterra and Fredholm integral equations; application to boundary problems of differential equations. Prerequisites: elementary differential equations and second course in calculus. 6 s.h.

[Not offered in 1941-42] Professor Elliott

343-344. Ordinary Differential Equations.—Solution by separation of variables, exact differentials, integrating factors, solution in series, Cauchy's existence theorem, linear differential systems, singular points, partial differential equations equivalent to ordinary systems. Prerequisite: Mathematics 291-292. 6 s.h.

PROFESSOR THOMAS

[Not offered in 1941-42]

- 353-354. Trigonometric Series.—Detailed, analytic study of trigonometric, particularly Fourier, series; related topics in Lebesgue integrals and complex variable. Prerequisite: Mathematics 325-326. 6 s.h. Dr. Boas
- 371-372. Advanced Topology.—Abstract spaces; continuous, interior, and topological transformations; dimension theory. Prerequisite: Mathematics 271-272. 6 s.h. Associate Professor Roberts

[Not offered in 1941-42]

382. Potential Theory.—Properties of harmonic functions. Existence theorems for boundary value problems. Potentials of general mass distributions. Prerequisites: Mathematics 281 and 325-326. **3 s.h.**

[Not offered in 1941-42]

PHILOSOPHY

PROFESSOR WIDGERY, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES—303 SCHOOL OF RELIGION; PROFESSORS GILBERT AND SMITH; ASSOCIATE PROFESSOR MORGAN; ASSISTANT PROFESSOR LEONARD; AND DR. MCLARTY

*Courses normally given in alternate years, of which those marked † are offered in 1941-42.

FOR SENIORS AND GRADUATES

201-202. †The Philosophy of Art.—Study of the various phases of the aesthetic experience and forms of beauty with analysis of examples. Particular attention will be given to recent writers on aesthetics. 6 s.h. (E)

Professor Gilbert

203. The Philosophy of Conduct.—A critical study of the fundamental problems of ethics. 3 s.h.

Associate Professor Morgan

204. Christian Ethics.—A historical and systematic study of Christian conceptions of the moral life and its problems. First semester. 3 s.h.

PROFESSOR SMITH

- 205. *The Philosophy of History.—An inquiry into the logic and methodology of the knowledge of history, and into the metaphysical implications of history. 3 s.h.

 Professor Widgery
- 208. Political Philosophy.—A critical investigation of the bases of political authority and of the ideals of political organization, with reference to prevalent political systems. 3 s.h.

 ASSOCIATE PROFESSOR MORGAN
- 209-210. †The Philosophy of Religion.—A critical consideration of the data of empirical religion and the constructive development of modern philosophy of religion. 6 s.h.

 Professor Widgery
- 211. Philosophy of Civilization.—The meaning and standards of civilization; its growth, decay, and survival. 3 s.h. Associate Professor Morgan

- 213-214. *History of Aesthetics.—The tracing of the historical solutions of traditional problems, such as the nature of imitation, symbolism, the ugly, the sublime, and the comic, the relation of art to nature, to morals, and to economics, the relation of the particular arts to each other, the standard of taste.

 6 s.h. (E)

 PROFESSOR GILBERT
 - 217. *The Philosophy of Aristotle.—Prerequisite: 105. 3 s.h.

 DR. McLarty
- 223. *Contemporary Philosophy.—A study of the leading philosophical movements in Europe and America in the last fifty years. Second semester. 3 s.h.

 Professor Widgery
- 226. †The History of Ethics.—Theories of morality from Socrates to the present time. 3 s.h.

 Associate Professor Morgan
- 231-232. Philosophy of Science.—A historical and critical survey of the relations of natural science to general philosophy. 6 s.h.

 Assistant Professor Leonard
 - 236. †Oriental Philosophy I. Chinese Philosophy.—3 s.h.

ACTING PROFESSOR DUBS

238. *Oriental Philosophy II. Indian Philosophy.-3 s.h.

PROFESSOR WIDGERY

- 241. †Logic.—The characteristic structure of a logical system. Forms of propositions and arguments. Logical relations of propositions. Levels of analysis. 3 s.h.

 Assistant Professor Leonard
- 242. †Scientific Methodology.—A survey of the methods used in the different branches of the natural and social sciences in seeking and testing knowledge. 3 s.h.

 Assistant Professor Leonard
- 244. *Nietzsche and the Nineteenth Century.—Studies in the major trends of intellectual life of the period, focused around the work of Nietzsche. 3 s.h.

 Associate Professor Morgan
- 245-246. *Philosophical Foundations of Religious Belief.—6 s.h. Religion 295-296. Acting Professor Dubs

248. *Philosophy of Values.—2 s.h.

ACTING PROFESSOR DUBS

FOR GRADUATES

- 301-302. Seminar in Philosophy.—Special problems, chiefly metaphysical. Two hours a week throughout the year. Time to be arranged. 4 s.h.

 Professor Widgery
- 305. †Seminar: Spinoza.—Detailed study of Spinoza's works showing the development of his own thought and his relation to his contemporaries. 3 s.h.

 Professor Gilbert
 - 307. †Seminar: Kant.—Second semester. 2 s.h.

ASSOCIATE PROFESSOR MORGAN

- 308. *Seminar: Hegel.—A study of a selection of the texts together with recent interpretations, 3 s.h.

 Professor Gilbert
- 310. †Seminar: Logical Positivism and Its Relation to Contemporary Movements in Philosophy and Science.—2 s.h.

Assistant Professor Leonard

315. †Seminar: Leibnitz.—2 s.h. Acting Professor Dubs

319-320. Religious Thought in the Rise of American Culture.—Prerequisite: Religious Education 261 or its equivalent. 6 s.h. Religion 393-394.

PROFESSOR SMITH

322. *Seminar in Philosophy of Religious Education.—Prerequisite: Religious Education 261 or its equivalent. 3 s.h. Religion 366. Professor Smith

323. †Seminar in American Religious Thought.—2 s.h. Religion 397.
PROFESSOR SMITH

325. *Seminar: Locke, Berkeley, Hume.-2 s.h.

Assistant Professor Leonard

326. Seminar: Christian Ethics.—Selected problems. 2 s.h. Religion 398.
PROFESSOR SMITH

RELATED COURSES IN OTHER DEPARTMENTS

Education 200. Introduction to the Philosophy of Education.—3 s.h.
[Not offered in 1941-42] Professor Holton

Greek 209-210. Plato.—Symposium, Protagoras, and parts of the Republic. 6 s.h. Assistant Professor Way

History 221-222. The Age of the Renaissance.—6 s.h.
[Not offered in 1941-42] Associate Professor Nelson

Mathematics 287. Mathematical Logic.—3 s.h.
[Not offered in 1941-42] Associate Professor Carlitz

Mathematics 288. Foundations of Mathematics.—3 s.h.
[Not offered in 1941-42] Associate Professor Carlitz

Physics 213-214. Contemporary Physics.—6 s.h.

Assistant Professor Constant

Political Science 223. Political Thought to the Seventeenth Century.—3 s.h.

PROFESSOR WILSON

Political Science 224. Modern Political Theory.-3 s.h.

PROFESSOR WILSON

Psychology 228. Psychology of Belief.—2 s.h. Professor Lundholm

Psychology of Religion 377-378. Seminar: Theories of Self.—4 s.h.

Professor Hickman

Religion 221. Platonism and Christianity.—An analysis of Plato's religious philosophy; its variants in Hellenistic and Christian thought. 3 s.h.

Assistant Professor Outler

Religion 222. Theology and Philosophy in the Nineteenth Century.—A

survey of the reciprocal relations of philosophy and theology. 3 s.h.

Assistant Professor Outler

Sociology 320. History of Social Philosophy.—3 s.h. Professor Ellwood

Zoology 341. Historical and Philosophical Biology.—2 s.h.
[Not offered in 1941-42] Professor Hargitt

PHYSICS

PROFESSOR NIELSEN,* CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES—101 PHYSICS BUILDING; PROFESSORS EDWARDS, HATLEY, NORDHEIM, AND SPONER; ASSIST-ANT PROFESSORS CONSTANT AND MOUZON;* DRS. BONNER AND HEBB

The Department of Physics makes provision for both beginning and advanced graduate students. The courses are designed to give a broad basic foundation in classical and quantum physics.

All graduate students will first be expected to acquire a thorough knowledge of the various branches of classical physics as well as some familiarity with modern physics and sufficient laboratory training. They will be required to take such course work in the 200 group of studies as may be necessary to complete this foundation.

To complete their course requirements in physics, graduate students will take such advanced courses as will best help them and fit them for the type of work in which they plan to specialize and undertake research. The character of the work in other related departments will also depend upon the field of subsequent specialization and research.

Since a reading knowledge of French and German is highly desirable, students are urged to satisfy the language requirements in both as early as

possible.

The research work of the Department is largely confined to the experimental and theoretical fields of nuclear physics and molecular structure. Experimental work is also being done in magnetism.

FOR SENIORS AND GRADUATES

211. History of Physics.—A rapid review of the fundamental laws of physics developed from the historical point of view. 2 s.h.

PROFESSOR EDWARDS

- 213-214. Contemporary Physics.—A course which covers in a descriptive manner the fundamental concepts and experimental basis of modern theories of the structure of matter. 6 s.h. Assistant Professor Constant
- 215-216. Atomic Physics Laboratory.—Some of the more important experiments which form the basis of modern atomic theory. Special emphasis is placed on experimental technique, valuable in original physical investigations.

 2-4 s.h. Professor Nielsen and Assistant Professor Mouzon
- 217-218. Advanced General Physics Laboratory.-Exact measurements involving the fields of mechanics, electrical measurements, heat, and pyrometry. PROFESSOR NIELSEN AND ASSISTANT PROFESSOR MOUZON 2 s.h.
- 219. Vacuum Tubes and Their Application.—Theory and application of vacuum tubes circuits with special emphasis on their use in scientific research. Two hours of lecture and one three-hour laboratory per week. 3 s.h.

Assistant Professor Mouzon

221-222. Introduction to Theoretical Physics.—Lectures and problems on the fundamental principles and mathematical theory of the general field of physics, constituting a thorough foundation for subsequent specialization and more intensive study. 8 s.h. Assistant Professor Constant

FOR GRADUATES

303. Thermodynamics.—Fundamental laws of thermodynamics and their applications to physics and chemistry. Offered jointly by the Departments of Physics and Chemistry. 3 s.h. PROFESSORS GROSS AND SPONER

[Not offered in 1941-42]

^{*} Absent on National Defense leave, 1941-42.

74 Physics

- 305. Kinetic Theory of Matter.—Gas laws. Maxwell's distribution law; mean free path; viscosity; heat conductivity; diffusion; phenomena in gases at low pressure; specific heat; entropy; probability and reaction kinetics. 3 s.h.

 PROFESSOR SPONER
- 307. Advanced Dynamics.—A course dealing with the more advanced phases of dynamics and considering such topics as equations of Lagrange and Hamilton, generalized coördinates, oscillatory and cyclic motion, criteria of equilibrium, and the Newtonian potential theory. 3 s.h.

 DR. Hebb
- 308. Theory of Electricity and Magnetism.—Electrostatics and potential theory. Dielectric and magnetic media. The magnetic field of currents and the law of induction. AC currents and networks. 3 s.h. Professor Nordheim
- 311. Conduction of Electricity through Gases.—Electron theory of conduction through gases; spark and glow discharges; electric arcs; excitation of spectra; energy levels; radioactive radiations. 3 s.h. Professor Edwards
- 315-316. Principles of Quantum Theory.—Origin and fundamental concepts of quantum theory; wave and matrix mechanics; theory of measurements; exclusion principle and electronic spin. 6 s.h. Professor Nordheim
- 319. Electrodynamics.—Maxwell's system of electrodynamics. Production and propagation of electromagnetic waves. Wave optics. Theory of interference and diffraction. Crystal optics. 3 s.h. PROFESSOR NORDHEIM [Not offered in 1941-42]
- 320. Theory of Electrons.—Lorentz' equations of electrodynamics. Classical theories of dispersion, magnetism, and conductivity. Theory of relativity.

 3 s.h.. PROFESSOR NORDHEIM

[Not offered in 1941-42]

- 323. Theory of Atomic Spectra.—Excitation of spectra, computation of wave lengths from photographs of spectra, study of the structure of atomic spectra with applications. 3 s.h.

 PROFESSOR SPONER [Not offered in 1941-42]
- 324. Theory of Molecular Spectra.—A study of the structure of molecular spectra with applications. 3 s.h.

 [Not offered in 1941-42]
- 340. Structure of Matter.—Selected topics dealing with the constitution of matter such as crystal structure and X rays, the solid state and nuclear physics. 3 s.h.

 PROFESSOR SPONER
- 341. Advanced Topics in Quantum Theory.—Quantum theory of radiation and collisions with special reference to nuclear physics. Prerequisite: Physics 315-316. 3 s.h.

 [Not offered in 1941-42]
- 343-344. Radioactivity and Nuclear Structure.—Discovery of radioactivity, properties of Alpha, Beta, and Gamma rays, successive transformations, artificial transmutations and nuclear structure.

 6 s.h. Professor Nielsen
- 351-352. Seminar.—A series of weekly discussions on topics related to the research projects under investigation in the department. 2 s.h. STAFF
- 353-354. Thesis Seminar.—Students who are properly qualified may carry on research work under the direction of members of the Staff. 6 s.h. Staff
 - * Absent on National Defense leave, 1941-42.

RELATED COURSES IN OTHER DEPARTMENTS

CHEMISTRY

261-262. Physical Chemistry.-6 s.h.

PROFESSOR GROSS, ASSISTANT PROFESSOR SAYLOR, AND DR. HOBBS

363-364. Advanced Physical Chemistry.—6 s.h.
Professors Gross and Vosburgh, Assistant Professors HILL AND SAYLOR, DR. HOBBS

365-366. Chemical Physics. Statistical Theory, Principles, and Applications .- 6 s.h. Professor London

[Not offered in 1941-42]

367-368. Chemical Physics. Theoretical Aspects of Atomic and Molecular Structure.-6 s.h. Professor London

ELECTRICAL ENGINEERING

261. Communication Engineering, Audio Frequency.—3 s.h. (E) PROFESSOR SEELEY

262. Communication Engineering, Radio Frequency.-Prerequisite: Course 261. 4 s.h. (E) Professor Seeley

MATHEMATICS

281. Elementary Potential Theory.-3 s.h.

[Not offered in 1941-42]

282. Differential Equations of Mathematical Physics .- 3 s.h. [Not offered in 1941-42]

283. Fourier Series and Spherical Harmonics.—Second semester. 3 s.h. Dr. Dressel

284. Vector Analysis.—First semester. 3 s.h.

Professor Thomas

ASSISTANT PROFESSOR LINEBARGER

POLITICAL SCIENCE

PROFESSOR WILSON, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES—311 LIBRARY; PROFESSORS RANKIN AND VON BECKERATH; ASSOCIATE PROFESSORS COLE AND SHIPMAN; ASSISTANT PROFESSOR LINEBARGER

FOR SENIORS AND GRADUATES

- 207. American Constitutional Law and Theory.-A study of leading principles of American government, as developed through judicial interpretation of the Constitution. 3 s.h. Professor Wilson
- 209. State and Local Government in the United States .- A study of the historical development of state and local governments, their present organization, their relation to each other and to the federal government. 3 s.h. Professor Rankin
- 211. Political Institutions of the Far East.—A study of the governmental systems of Japan, Korea, and China from the Chou Dynasty to the present. Assistant Professor Linebarger 3 s.h.
- 212. International Politics of the Far East .- A study of changing power relationships in the Orient since the arrival of the Europeans. 3 s.h.
- 223. Political Thought to the Seventeenth Century.—A survey of political thought from the time of Plato to the close of the sixteenth century. 3 s.h. PROFESSOR WILSON

- 224. Modern Political Theory.—Political theories of the seventeenth and eighteenth centuries, and of the first half of the nineteenth, with a study of their influence upon modern political institutions. 3 s.h. Professor Wilson
- 225-226. Comparative Government.—A comparative study of modern political institutions, with special reference to bureaucracy, federalism, fascism, dictatorship, constitutions, representation, parliamentarism, and separation of powers. 6 s.h.

 Associate Professor Cole
- 227-228. International Law.—Elements of international law, particularly as interpreted and applied by the United States. 6 s.h. Professor Wilson
- 229. Recent and Contemporary Political Theory.—A study of the more significant contributions to political theory from 1850 to the present. 3 s.h.
 [Not offered in 1941-42] Associate Professor Cole
- 230. American Political Institutions.—A study of the formation and development of institutions of the national government in the United States, with historical and analytical treatment. 3 s.h.

 Professor Rankin
- 241-242. The Administrative Process.—The function and theory of organization, delegated legislation, administrative adjudication, the control of administration, and special problems in economic balancing and proprietary activities. 6 s.h.

 Associate Professor Shipman
- 244. Administrative Law.—The law of the administrative process, including the nature of regulatory authority, the status and liability of public officers, administrative tribunals and the judicial review of administrative action. 3 s.h.

 Associate Professor Shipman
- 246. Legislation.—A study of the legislative process with attention to procedure, methods, techniques, delegation of discretion, and the use of controls. 3 s.h.

 Associate Professor Shipman

[Not offered in 1941-42]

- 271. Socio-Politics and Capitalism.—Labor and labor policies in Western Europe and the United States in the nineteenth and twentieth centuries, 3 s.h.

 PROFESSOR VON BECKERATH
- 291. Municipal Government.—A study of general problems relating to the structural system and activities of municipalities in the United States. 3 s.h.

 Professor Rankin
- 292. Municipal Administration.—A study of principles and methods of municipal administration in the United States. 3 s.h. Professor Rankin

FOR GRADUATES

- 310. Seminar in State Government.—Open to students who have completed course 209 or its equivalent. 3 s.h.

 [Not offered in 1941-42]
- 311. Seminar in Far Eastern Politics.—Open to students who have completed course 211 or its equivalent. 3 s.h. Assistant Professor Linebarger
- 325. Seminar in Comparative Government.—Open to students who have completed course 225-226 or its equivalent. 3 s.h. Associate Professor Cole
- 328. Seminar in International Law.—Open to students who have completed course 227-228 or its equivalent. 3 s.h.

 [Not offered in 1941-42]
- 341. Seminar in Public Administration.—Open to students who have completed course 241-242 or its equivalent. 3 s.h.

ASSOCIATE PROFESSOR SHIPMAN

RELATED COURSES IN OTHER DEPARTMENTS

Economics 233. State and Local Finance.—3 s.h.

ASSOCIATE PROFESSOR RATCHFORD

Economics 237-238. Statistical Methods.-6 s.h.

ASSISTANT PROFESSOR SPRINGER

Economics 265. International Trade and Tariff Policies. - 3 s.h.

PROFESSOR VON BECKERATH

Economics 266. International Finance.—3 s.h. Professor Hamilton [Not offered in 1941-42]

Economics 316. Economic Functions of the State.—3 s.h.

Professor Hoover

History 215-216. History of the Foreign Relations of the United States.—6 s.h.

Associate Professor Clyde

History 217-218. Europe since 1870.-6 s.h.

Professor Carroll

History 234. Political and Social Problems in the Hispanic American Republics.—3 s.h.

Associate Professor Lanning

[Not offered in 1941-42]

Philosophy 208. Political Philosophy.-3 s.h.

Associate Professor Morgan

Sociology 213. Constructive Social Policies.—2 s.h. Professor Jensen [Not offered in 1941-42]

PSYCHOLOGY

PROFESSOR LUNDHOLM, CHAIRMAN—3C WEST DUKE BUILDING; ASSOCIATE PROFESSOR ADAMS, DIRECTOR OF GRADUATE STUDIES—216 SCIENCE BUILDING;
PROFESSOR RHINE; ASSOCIATE PROFESSOR ZENER;
ASSISTANT PROFESSOR KEMP

The aim of the Department is to provide opportunity for advanced study in a variety of fields of theoretical and experimental psychology. The emphasis in the presentation of courses, however, is less upon quantity and extent than upon balance and selective representation.

In the direction of research done by graduate students, two general aims are kept in mind: that of training and that of fruitful achievement. The work for the Master's degree weights the first, that for the Ph.D. the second of

these aims.

It is expected that the graduate students will have entered with preparation equivalent to the undergraduate courses offered by the Department. A reading knowledge of French and German is desirable from the beginning, and in no case should the acquisition of this be postponed later than the beginning of the second year.

No limitation is laid down as to the departments in which it is possible to minor. The fields most usually relevant to graduate study in psychology, how-

ever, are education, sociology, zoology, physiology, and philosophy.

Encouragement is given to originality and freedom in thinking in the individual research of the student. There is wide tolerance of subject matter for research.

FOR SENIORS AND GRADUATES

202. Psychology of Aesthetics.—3 s.h. [Not offered in 1941-42]

PROFESSOR LUNDHOLM

206. Social Psychology.-3 s.h.

ASSOCIATE PROFESSOR ADAMS

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207. Psychology of Memory, Thinking, Perceiving.—Second semester. 3 s.h. ASSOCIATE PROFESSOR ZENER

209. Experimental Methods in Human Psychology.- 4 s.h.

ASSOCIATE PROFESSOR ZENER

Assistant Professor Kemp 211. Physiological Psychology.—3 s.h.

215. Developmental Psychology.—3 s.h. Associate Professor Adams

223. Abnormal Psychology.-3 s.h. Professor Lundholm [Limited registration. Admission only after consultation with instructor.]

226. Contemporary Schools of Psychology.—First semester. 3 s.h. [Not offered in 1941-42] Associate Professor Zener

228. Psychology of Belief .- 2 s.h.

Professor Lundholm

FOR GRADUATES

302. Seminar.-3 s.h. [Not offered in 1941-42] Professor Lundholm

303-304. Research.-2 or 3 s.h.

PROFESSORS LUNDHOLM AND RHINE; ASSOCIATE PROFESSORS ADAMS AND ZENER

306. Seminar in Child Psychology.—2 or 3 s.h.

ASSOCIATE PROFESSOR ADAMS

307. Seminar in Psychology of Personality.-3 s.h. Professor Rhine

309. Theory of Learning .- 3 s.h. [Not offered in 1941-42]

ASSOCIATE PROFESSOR ADAMS

310. Seminar: Selected Problems in the Dynamics of Behavior.—Topics vary from year to year. 3 s.h. Associate Professor Zener

313. Seminar in Parapsychology.-3 s.h. [Not offered in 1941-42]

PROFESSOR RHINE

RELIGION

PROFESSOR SMITH, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES-304 SCHOOL OF RELIGION; PROFESSORS BRANSCOMB, DUBS, GARBER, AND RUSSELL; ASSOCIATE PROFESSOR STINESPRING; ASSISTANT PROFESSORS CLARK, OUTLER, AND PETRY

Graduate study in religion leading to the degrees of Master of Arts and Doctor of Philosophy may be pursued in three fields: (1) Biblical Studies (Professor Branscomb, Advisor); (2) Studies in Church History (Professor Garber, Advisor); and (3) Studies in Christian Theology and Ethics (Professor Smith, Advisor). A student majoring in one of these fields will be expected to take such courses in one or both of the other fields as may be necessary to give an adequate understanding of his field of specialization.

Students pursuing work in the field of religion will be expected to take such other courses in cognate fields as will aid in the understanding of their field of specialization. Special attention is called to the Division of Ancient Languages and Literature for those working in Field 1; to the Department of History for those working in Field 2; and to the Department of Philosophy and the Department of Sociology for those working in Field 3.

FIELD I. BIBLICAL STUDIES

201-202. First Hebrew.—The principles and structure of the Hebrew language with translation of selected Old Testament narratives, M.W.F. at 9:10. Associate Professor Stinespring 6 s.h.

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- 301. Old Testament Theology.—The religious and ethical teachings of the books of the Old Testament in their historical development. Prerequisite: Old Testament 203-204. T.Th.S. at 10:20. 3 s.h. PROFESSOR RUSSELL
- 304. Aramaic.—A study of the Aramaic portions of the Old Testament, and selected passages from the Targums, Midrashes, and Talmuds. Hours to be arranged. 3 s.h. ASSOCIATE PROFESSOR STINESPRING
- 305-306. Arabic.—Introduction to the classical language and literature with some attention to the modern idiom. 6 s.h.

[Not offered in 1941-42] ASSOCIATE PROFESSOR STINESPRING

- 307-308. Second Hebrew.—Samuel or Kings the first semester and Isaiah the second. M.W.F. at 2:00. 6 s.h. ASSOCIATE PROFESSOR STINESPRING
- 309. History of the Ancient Near East.—A survey of the early civilizations of Egypt, Palestine, Syria, and Mesopotamia in light of Biblical archaeology. T.Th.S. at 11:30. 3 s.h.

 Associate Professor Stinespring
- 310. Old Testament Prophecy.—The prophetic movement in Israel with special emphasis on the prophets of the eighth century B.C. T.Th.S. at 10:20. 3 s.h. ASSOCIATE PROFESSOR STINESPRING

[Not offered in 1941-42]

- 218. Galatians and I Corinthians.—A detailed study of two of Paul's major epistles. The course will be based on the Greek text. T.Th.S. at 9:10. ASSISTANT PROFESSOR CLARK
- 220. I Peter and the Gospel of John.—A detailed study of two of the non-Pauline writings of the New Testament. The course will be based on the Greek text. T.Th.S. at 9:10. 3 s.h. ASSISTANT PROFESSOR CLARK
- 311. The Life and Teachings of Jesus.—Prerequisite: New Testament 213-214. M.W.F. at 10:20. 3 s.h. PROFESSOR BRANSCOMB
- 312. New Testament Theology.—The religious teaching of the books of the New Testament. Prerequisite: New Testament 213-214. M.W.F. at 10:20. 3 s.h.

 Professor Russell
- 313. The Apostolic Fathers.—A study of the Christian development from Clement of Rome to Polycarp, with readings of the Greek text. 3 s.h. ASSISTANT PROFESSOR CLARK

- 314. Early Christian Apologists.—A study of Christian apologetic in the second century, with readings of the Greek text. 3 s.h. Professor Branscomb
- 315. Hellenistic Religions at the Beginning of the Christian Era.—T.Th.S. at 10:20. 3 s.h. ASSISTANT PROFESSOR CLARK
- 316. Judaism at the Beginning of the Christian Era.—A study of Judaism from the time of Ben Sirach to the writing of the Mishna. T.Th.S. at 10:20. Professor Branscomb
- 318. Text of New Testament.-A study of the materials for the reconstruction of the text, the principles of textual criticism, and the history of the text. Practical exercises in the use of manuscripts and facsimiles will be given. T.Th.S. at 10:20. 3 s.h. Assistant Professor Clark

FIELD II. STUDIES IN CHURCH HISTORY

331. The Social Message of the Early and Medieval Church.—A study of the social teachings of the Christian Church prior to the Protestant Reformation. Prerequisite: Church History 233-234. T.Th.S. at 8:00. 3 s.h.

Assistant Professor Petry [Not offered in 1941-42]

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332. The Medieval Church.—Outstanding characteristics of the Medieval Church, emphasizing theory, polity, institutions, sacraments, and worship. Prerequisite: Church History 233-234. T.Th.S. at 8:00. 3 s.h.

Assistant Professor Petry

333. The Church in Europe since 1800.—Emphasis is placed on the relation of the Church to the social, economic, and political life of Modern Europe. Prerequisite: Church History 233-234. M.W.F. at 11:30. 3 s.h.

Professor Garber

- 334. A History of Christian Renunciation in the Middle Ages .- A study of the renunciatory ideal and spiritual practices with special reference to Benedictines, Franciscans, Lowland Mystics, and leading seculars. Prerequisite: Church History 233-234. M.W.F. at 11:30. 3 s.h. Assistant Professor Petry
- 335-336. The Church in America.—The Church as a factor in the social, economic, and political life of America. Prerequisite: Church History 233-234. 6 s.h.
- 337. Religion in the Southern States since the Civil War.—A study of the religious life of the Southern people since 1865. Prerequisite: Church History 233-234. 3 s.h.

[Not offered in 1941-42]

339. Seminar on Frontier Religion.—Special Studies on influence of the frontier in American religious life. Prerequisite: Church History 233-234. Second semester. 2 s.h. Professor Garber

FIELD III. STUDIES IN CHRISTIAN THEOLOGY AND ETHICS

- 221. Platonism and Christianity.—An analysis of Plato's religious philosophy and a survey of its continuing influence in Hellenistic and Christian thought. Prerequisite: six semester hours in philosophy or its equivalent. 3 s.h. Assistant Professor Outler
- 222. Theology and Philosophy in the Nineteenth Century.-A study of Protestant thought from Schleiermacher to Troeltsch, with special attention to the reciprocal relations between theology and metaphysics. 3 s.h. Assistant Professor Outler
- 291. Christian Ethics.—An historical and systematic study of Christian conceptions of the moral life and its problems. T.Th.S. at 11:30. 3 s.h.

PROFESSOR SMITH

- 295. Philosophical Foundations of Religious Belief I .- The nature of religion, its types and their characteristics as bearing upon contemporary Christianity. T.Th. at 2:15-3:30. 3 s.h.

 ACTING PROFESSOR DUBS [Not offered in 1941-42]
- 296. Philosophical Foundations of Religious Belief II.—The problems of knowledge and value; the values of religion; the ideal religion; an attempt to formulate a tenable theistic philosophy. T.Th. at 2:15-3:30. 3 s.h.

[Not offered in 1941-42] ACTING PROFESSOR DUBS

323. The Christian Conception of the Church.—A historical survey of the ways in which the Christian tradition has interpreted the idea of the church, followed by a critical analysis of the theological implications of such contemporary problems as church and state, church and culture, and the ecumenical movement. Prerequisite: Christian Doctrine 321. M.W.F. at 11:30. 3 s.h. Assistant Professor Outler

- 329. Seminar in Historical Theology.—Selected problems in the history of Christian thought, with special reference to the relation between theology and philosophy. Hours to be arranged. 2 s.h. Assistant Professor Outler
- 366. Seminar in Philosophy of Religious Education.—A critical study of the basic concepts and theories underlying religious education. T. at 3:30.

 2 s.h. Professor Smith
- 393-394. Religious Thought in the Rise of American Culture.—A survey of the main developments in American religious thought in relation to the growth of civilization and culture. T.Th.S. at 9:10. 6 s.h. PROFESSOR SMITH
- 397. Seminar in American Religious Thought.—Selected problems, chiefly of the nineteenth century. T. at 3:30. 2 s.h. Professor Smith
- 398. Seminar in Christian Ethics.—A critical study of selected problems. T. at 3:30. 2 s.h. Professor Smith

ROMANCE LANGUAGES

PROFESSOR WEBB, CHAIRMAN—107 GRAY BUILDING; PROFESSOR JORDAN, DIRECTOR OF GRADUATE STUDIES—106 GRAY BUILDING; PROFESSOR COWPER; ASSOCIATE PROFESSORS LUNDEBERG* AND WALTON; ASSISTANT PROFESSOR REID

To be eligible for graduate study in this Department, the student should have credit for four years of college work in the chosen language, or eighteen hours beyond the conventional two units offered at entrance to college. In addition to this minimum requirement, one semester of composition and grammar review is highly desirable.

It is recommended that candidates for the Master's degree take a second

Romance Language for the minor subject.

A candidate for the Ph.D. degree should be equipped to follow graduate courses in a second Romance Language. Some training in Romance Linguistics will be required for this degree, the amount to be determined by the Department upon consideration of the student's preparation in the field.

FRENCH

FOR SENIORS AND GRADUATES

- 213. French Classicism.—From Malherbe to La Bruyère. 3 s.h.
 ASSOCIATE PROFESSOR WALTON
- 214. French Classicism.—From La Bruyère to the Encyclopedists and Beaumarchais. 3 s.h.

 Associate Professor Walton
- 215-216. The Modern French Novel.—A survey of the novel form from the seventeenth to the twentieth century, with particular attention to the analysis of fundamental literary tendencies: classicism, rationalism, romanticism, and realism. 6 s.h.

 PROFESSOR JORDAN
- 217. French Phonetics.—French sounds and French spelling; pronunciation drills; exercises in phonetic transcription and dictation; diction; aural comprehension. Second semester. 3 s.h.

 PROFESSOR WEBB
- 218. Materials and Methods.—History of the teaching of French and Spanish; methods, the course of study; analysis and criticism of representative texts; tests and examinations; objectives in the light of teaching conditions, equipment and future application. First semester. 3 s.h. Professor Webb
- 219. Old French.—An introduction to the Old French language and literature. The Chanson de Roland—Aucassin et Nicolette. 3 s.h. Professor Cowper * Absent on leave, second semester, 1941-42.

220. Old French.—Types of Old French literature. The romances of chivalry. 3 s.h. Professor Cowper

227. French Poetry since Théophile Gautier.—Parnassianism and Symbolism. 3 s.h.

Associate Professor Walton

[Not offered in 1941-42]

232. Rousseau and the Beginnings of Romanticism.—3 s.h.
[Not offered in 1941-42] Professor Cowper

233. Main Currents of Modern French Literature.—A survey of the principal literary tendencies from the seventeenth to the nineteenth century. Selected illustrative readings from leading authors. 3 s.h. Professor Webb [Not offered in 1941-42]

FOR GRADUATES

317. History of the French Language.—3 s.h. [Not offered in 1941-42]

Professor Cowper

323. Realism and Naturalism.—Literary doctrines and practices in the generation of 1850-90, with particular reference to the background of scientific thinking. 3 s.h. Professor Jordan

325-326. French Literature in the Sixteenth Century.—6 s.h.
[Not offered in 1941-42] Associate Professor Walton

328. Anatole France.—3 s.h. [Not offered in 1941-42]

Associate Professor Walton

329. History of French Civilization.—2 s.h. [Not offered in 1941-42]

Professor Webb

331. Diderot and the Encyclopédie.—3 s.h. [Not offered in 1941-42]

Professor Cowper

333-334. Contemporary French Literature.—A study of the main currents in the twentieth century, with consideration chiefly of authors who have contributed most to contemporary tendencies. 6 s.h.

[Not offered in 1941-42]

350. Nineteenth-Century French Criticism.—A survey of critical doctrines and practices from Sainte-Beuve to the end of the century. 3 s.h.

PROFESSOR JORDAN

SPANISH

FOR SENIORS AND GRADUATES

253. Spanish Phonetics.—The sounds of the Spanish language; sound changes; exercises in transcription; regional pronunciation; intonation; limited use of electrical recording machines. 3 s.h.

Associate Professor Lundeberg

260. Advanced Syntax and Composition.—A systematic review of Spanish syntax; free oral and written composition; selected translation assignments; epistolary forms, etc. Conducted mainly in Spanish. 3 s.h.

Assistant Professor Reid

261-262. The Modern Spanish Novel.—The evolution of the novel from the Costumbrista writers through the generation of 1898. 6 s.h.

[Not offered in 1941-42]

Associate Professor Lundeberg

- 265. Golden Age Literature: Cervantes.-The Novelas ejemplares; analytic study of the tales, their style, literary importance and influence. 3 s.h. ASSOCIATE PROFESSOR LUNDEBERG
- 266. Golden Age Literature: The Don Juan Theme.—Study of the representative Don Juan plays of the Golden Age, with reference to use of this motif by later writers. 3 s.h. ASSOCIATE PROFESSOR LUNDEBERG

For Methods of Teaching Spanish see French 218.

SOCIOLOGY

PROFESSOR ELLWOOD, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES—303 GRAY BUILDING; PROFESSORS GROVES, HART, AND JENSEN; ASSOCIATE PROFESSORS GILLIN AND THOMPSON

- 205. Social Pathology.-A study of the causes, extent, significance, and constructive treatment of the principal forms of pathology in modern society: poverty, physical defectiveness, malnutrition, mental deficiency, mental disease, undirected leisure activities, and unstandardized commercial recreation, alcoholism, prostitution, vagrancy, and delinquency. Prerequisite: course 91-92 or 101. 3 s.h. Professor Jensen
- 206. Criminology.—A study of the original tendencies of man and the problem of socializing these tendencies; the relations of physical and mental defectiveness and untoward influences in the home and neighborhood to crime; the development of criminological theory and procedure, emphasizing penal and reform methods, and especially modern methods of social treatment and prevention of crime. Prerequisite: course 91-92 or 101. 3 s.h.

Professor Jensen

212. Child Welfare.—A study of heredity and environment as factors in personality development; infant conservation; welfare responsibilities of the school, emphasizing the physical and mental well-being of the child, play, and compulsory and industrial education; child labor, diagnosis and treatment of delinquency; care of the dependent and neglected child; child-caring agencies, public and private; and a community program of child welfare. Prerequisite: course 91-92 or 101. 3 s.h. Professor Jensen

[Not offered in 1941-42]

213. Constructive Social Policies.—An intensive study of the theories and legislation dealing with such problems as compensation, vocational re-education, and other methods of social insurance and social improvement. 2 s.h.

[Not offered in 1941-42] PROFESSOR JENSEN

- 217. Race and Culture.—An analytical study of racial and cultural relations and problems of the Indian, the Negro, and other minority groups in historical and contemporary society. Prerequisite: course 91-92 or 101. 3 s.h. ASSOCIATE PROFESSOR THOMPSON
- 219. Urban Sociology.—This course studies the function of the city in the larger community which it nucleates both as market and as industrial center. More detailed attention, however, is given to the inner life and problems of the city. Prerequisite: course 91-92 or 101. 3 s.h.

Associate Professor Thompson

220. Rural Sociology.—A study of the societies developed by people who settle the land and exploit it for a livelihood. The institutions peculiarly rural are the farm family, the peasant village, the ranch, and the planta-tion. In this course special attention is given to the plantation and the rural problems of the South. Prerequisite: course 91-92 or 101. 3 s.h.

Associate Professor Thompson

227. Emigration and Immigration.—A study of territorial movements of population with special reference to Europe and America. Causes and extent of migration; its effect upon American and European society; origin and characteristics of immigrant groups and their organization in the New World; problems, agencies, and processes of assimilation. Prerequisite: course 91-92 or 101. 3 s.h.

PROFESSOR JENSEN

[Not offered in 1941-42]

- 231. General Anthropology.—A survey of mankind and its cultural activities from the earliest times to the present day; fossil man and the development of the present species; modern races and varieties; first steps and later elaborations in tools and other material creations, language, family life, and social organization, political institutions, art, and religion. Special attention will be given to the simpler societies. 3 s.h.

 Associate Professor Gillin
- 232. Cultural Anthropology.—A study of the dynamics of culture and its varieties, using materials from the simpler societies in various parts of the world; functions of culture, psychological aspects, the individual and culture, environmental aspects, cultural growth and change, acculturation; applications of these concepts to certain contemporary problems. Prerequisite: course 91-92, 101, or 231. 3 s.h.

 Associate Professor Gillin
- 234. Social Ethics.—An attempt to develop answers to such questions as: How can potential leaders discover and acquire the skills required for rendering their fullest service to their fellow men, particularly capacities for creative cooperation and insight? On what intellectually and scientifically sound basis can one formulate the fundamental policies of one's life? On what ultimate criteria are social policies to be based? 3 s.h. Professor Hart
- 237. Indians of North America.—Origin and early developments of aboriginal populations; development and distribution of tribes, their customs and languages; Indian influences on Euro-American culture; present status of the Indians; considerations of the culture-environment relationship in the light of comparisons between aboriginal and modern American life. Prerequisite: course 231. 3 s.h.

 Associate Professor Gillin
- 238. Anthropology of South America.—The aboriginal races and cultures of South America; origins, development; distribution and variations at the time of the Discovery; Iberian and African racial importations of the past 400 years; the contemporary fusion and mixtures in such areas as Brazil, the Andean highlands, etc., and their relation to certain contemporary problems. Prerequisite: course 231. 3 s.h.

 Associate Professor Gillin
- 252. Education and Social Control.—A study of education as an agency of social progress from primitive times to the present. Prerequisite: course 91-92 or 101. 2 s.h.

 PROFESSOR ELLWOOD
- 281. Public Opinion.—The fundamental problems and processes of social control and social change in democratically organized groups; the nature and development of public opinion, its cultural and psychological bases, the role of leadership, pressure groups, prestige, propaganda, censorship, advertising, the press, the motion picture, the radio, the graphic arts, etc., in its management and dissemination. 3 s.h.

 PROFESSOR JENSEN

[Not offered in 1941-42]

FOR GRADUATES

317. Seminar in Anthropology.—A seminar for advanced students who wish to pursue individual studies in racial or cultural anthropology. 1 to 3 s.h.

Associate Professor Gillin

Sociology

319. Principles of Sociology.—A critical study of sociological theory. The sociological theories of recent writers will be critically examined with a view to laying the foundation for a constructive theory of the social life in modern biology and psychology. Discussions and papers by the class. 3 s.h.

PROFESSOR ELLWOOD

- 320. History of Social Philosophy.—Lectures on the development of social thought from Aristotle to the present: the social philosophies of Plato, Aristotle, St. Augustine, Thomas Aquinas, Machiavelli, Bodin, Hobbes, Locke, Vico, Montesquieu, Rousseau, Condorcet, and the sociological systems of Comte, Spencer, Schaeffle, Lilienfeldt, Gumplowicz, Ratzenhofer, and Ward will, among others, be considered. A large amount of assigned reading will be required in this course. The student is advised to correlate this course with related courses in economics, history, political science, and philosophy.

 3 s.h.

 PROFESSOR ELLWOOD
- 322. Methods of Social Research.—A study of the various methods of research and investigation that can be applied to the study of social phenomena. 3 s.h.

 PROFESSOR JENSEN
- 330. Seminar.—Research work upon special problems in sociology and social work. One hour each week throughout the year. 1 s.h. each semester.

 PROFESSORS ELLWOOD, HART, AND JENSEN;

 ASSOCIATE PROFESSOR THOMPSON
- **340. Seminar.**—Special problems in race relations, urban and rural life, and the sociology of the South generally. **3 s.h.** *each sempster.*

Associate Professor Thompson

342. Seminar in Marriage and the Family.—Special problems. Open to graduate students who have had at least twelve hours in Sociology. 2-4 s.h.

1 KUFESSUR GRUVES

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- 350. Seminar in Applied Sociology.—Special research problems in social pathology, child welfare, criminology, and related topics. 1 to 3 s.h. each semester.

 Professor Jensen
- 351. Seminar in Medical Sociology.—The basic principles of the various medical specialties as applied to the problems of marriage and the family. Open only to graduate students in sociology, with the consent of the instructor and of the Director of Graduate Studies. Given by the Staff of the Medical School under the direction of Dr. Bayard Carter, M.D. 2 s.h.
- 352. Seminar in Family Law.—A seminar approach to the efforts of the social sciences, including law, to deal with the intricate and perplexing problems of the modern family. Readings are assigned in legal and sociological material. 2 s.h.

 PROFESSOR BRADWAY

RELATED COURSES IN OTHER DEPARTMENTS

Economics 217. Population Problems and Resources .- 3 s.h.

Professor Spengler

Economics 315. Economic Systems.—3 s.h.

Professor Hoover

Economics 316. Economic Functions of the State.—3 s.h.

Professor Hoover

Philosophy 205. Philosophy of History.—3 s.h. Professor Widgery [Not offered in 1941-42]

Political Science 223. Political Thought to the Seventeenth Century.—3 s.h.

PROFESSOR WILSON

Political Science 224. Modern Political Theory.—3 s.h. Professor Wilson Psychology 206. Social Psychology.—3 s.h. Associate Professor Adams

86 Zoology

ZOOLOGY

ASSOCIATE PROFESSOR GRAY, CHAIRMAN—218 BIOLOGY BUILDING; PROFESSOR HARGITT, DIRECTOR OF GRADUATE STUDIES—326 BIOLOGY BUILDING; PROFESSORS CUNNINGHAM,* HALL, AND PEARSE; ASSISTANT PROFESSOR BOOKHOUT

For admission to candidacy for the Master's degree the applicant should have completed an undergraduate major in zoology, or its equivalent (courses in general science and botany cannot be counted as a part of the zoology major). This normally amounts to about twenty-four semester hours of course work, which should be distributed among the various fields of zoology, and must include comparative anatomy of vertebrates or vertebrate zoology, physiology, and embryology. The major work must have been passed with good grades. At least one year of chemistry is required, and a year of physics is recommended. Work for the degree will require eighteen hours in advanced

courses in zoology, six hours in a minor department, and a thesis.

For admission to candidacy for the Ph.D. degree it is expected that the undergraduate major in zoology will amount to about thirty-two hours which have been passed with good grades. Comparative anatomy of vertebrates or vertebrate zoology, physiology, and embryology must be included in the undergraduate major. At least two years of chemistry and one year of botany are required and one year of physics is recommended; for certain fields organic chemistry is desirable. Toward the end of the first year of residence a committee will be appointed for each candidate, which will review his preparation and set specific requirements which must be met. This program will include one or more graduate courses in each of several fields of zoology; broad knowledge of science in general and of biology in particular, attained by wide reading; required major and minor courses, and research; and a satisfactory dissertation which is the result of original work. The Department requires that a first draft of the dissertation shall be completed by March 15 of the year in which the degree is to be conferred. At least one year before the degree is to be conferred each candidate must pass an examination on the whole field of zoology and the minor.

FOR SENIORS AND GRADUATES

- 204. Advanced Parasitology.—Lectures, conferences, readings, and laboratory work, dealing with practical and theoretical matters relating to animal parasites. Offered in alternate years. Prerequisite: Zoology 161. 3 or 4 s.h.

 [Not offered in 1941-42] Professor Pearse
- 222. Entomology.—Anatomy, physiology, embryology, and classification of insects. Offered in alternate years. Prerequisite: one year of zoology. 4 s.h.

 Associate Professor Gray
- 224. Vertebrate Zoology.—A study of the life histories, adaptations, ecology, and classification of vertebrate animals. Offered in alternate years. Prerequisite: Zoology 53. 4 s.h.

 [Not offered in 1941-42]

 ASSOCIATE PROFESSOR GRAY
- 229. Endocrinology.—The structure, physiology, and embryology of the endocrine glands. Lectures, reading assignments, and reports. Prerequisites: Zoology 53, 92. 3 or 4 s.h.

 [Course 229 or course 327 may be offered in the second semester of 1941-42]
- 274. Invertebrate Zoology.—A study of structure, function, and habits of invertebrate animals under normal and experimental conditions. Field trips will be made to study, collect, and classify animals in their natural habitats. Prerequisites: Zoology 1 and 2. 4 s.h.

 Assistant Professor Bookhout

^{*} Absent on leave, first semester, 1941-42.

Zoology

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FOR GRADUATES

303. Ecology.—Relation of animals to environment. Lectures, readings, reports, conferences; laboratory and field work. Offered in alternate years.

4 s.h. Professor Pearse

[Not offered in 1941-42]

- 306. Advanced Ecology Lectures, conferences, field work, and methods. Offered in alternate years. Prerequisite: Zoology 303. 4 s.h. Professor Pearse [Not offered in 1941-42]
- 307. Foundations of Zoology.—Lectures, readings, and discussions on the background and training essential for a professional zoologist. Offered in alternate years. 2 s.h.

 PROFESSOR PEARSE
- 321. General Physiology.—Comparative study of functions in all animal groups, especially of vertebrates. Lectures, laboratory work, and conferences. 4 s.h.

 Professor Hall
- 324. Advanced Physiology.—Present-day problems in physiology, with laboratory projects involving precise instrumental analyses. Lectures, conferences, and laboratory work. Prerequisite: Zoology 151 or 321. 4 s.h.

 Professor Hall
- 327. Experimental Embryology.—Lectures, assigned readings, and reports. Offered in alternate years. Prerequisites: Zoology 92, 151 or 321. 3 s.h.

 PROFESSOR CUNNINGHAM

[Course 229 or course 327 may be offered in the second semester of 1941-42]

341. Historical and Philosophical Zoology.—Readings and discussions. A critical study of the developments of modern biological concepts and theories, their past and present significance. Offered in alternate years. 2 s.h.

[Not offered in 1941-42] Professor Hargitt

- 343. Cytology.—The structure of the cell. Lectures, readings, reports, and laboratory work. Offered in alternate years. Prerequisites: Zoology 53, 92, 156 or equivalents. 4 s.h.

 PROFESSOR HARGITT
- 351-352. Zoological Journal Club.—A weekly meeting of graduate students and Faculty to hear reports and to discuss biological facts, theories, and problems. One hour a week throughout the year. Required of all graduate students who major in zoology. 2 s.h.
- 353-354. Research.—Students who have had proper training may carry on research under direction of members of the Staff, in the following fields:
 - (a) Embryology and Endocrinology.

Professor Cunningham

(b) Comparative and General Physiology.

PROFESSOR HARLL
PROFESSOR HARGITT

(c) Histology and Cytology.(d) Invertebrate Zoology.

Assistant Professor Bookhout

(e) Ecology, Parasitology, and Behavior.

Professor Pearse

- (f) Vertebrate Zoology and Entomology. Associate Professor Gray Hours and credits to be arranged.
- **355-356. Seminar.**—Special seminar courses in particular fields are given by various professors when the number of students makes them desirable. Hours and credits to be arranged.
 - *(a) Embryology and Endocrinology.

Professor Cunningham

* Not offered in 1941-42.

(b) Comparative and General Physiology.

PROFESSOR HALL

*(c) Histology and Cytology.

Professor Hargitt

*(d) Invertebrate Zoology.

Assistant Professor Bookhout

*(e) Ecology, Parasitology, and Behavior.

Professor Pearse

(f) Vertebrate Zoology and Entomology. Associate Professor Gray

COURSES IN THE MEDICAL SCHOOL OPEN TO GRADUATE STUDENTS

PROFESSORS EADIE, PERLZWEIG, D. T. SMITH, AND SWETT; ASSOCIATE PROFESSORS F. M. BERNHEIM, DANN, HETHERINGTON, MCCREA, MARTIN, AND TAYLOR; ASSISTANT PROFESSORS M. L. C. BERNHEIM, CONANT, EVERETT, HOLLINSHEAD, AND NEURATH; DRS. COOLIDGE

AND YOUNGSTROM

The facilities of the departments listed below are available to qualified students for independent or supervised research and investigations whether

working for advanced degrees or otherwise.

Graduate students desiring to pursue a major or a minor in any of the departments listed below or to be admitted to any of the courses listed below should consult or write to the head of the Department concerned: Anatomy, Dr. Swett; Bacteriology, Dr. D. T. Smith; Biochemistry, Dr. Perlzweig; Physiology and Pharmacology, Dr. Eadie; Nutrition, Dr. Dann.

ANATOMY

M201. Gross Human Anatomy.—A course especially designed for graduate students, comprising a complete dissection of the cadaver. The laboratory work is supplemented by conferences which place emphasis on the biological aspects of the subject. Fall and winter quarters. Hours and credits (maximum 8 s.h.) by arrangement. Prerequisites: adequate training in comparative anatomy and embryology. DR. SWETT AND STAFF

M202. Microscopic Anatomy.—Conferences and laboratory work on the morphological characteristics of the tissues of the animal body. The work is based upon a study of fresh and prepared material and is approached from the physiological viewpoint. Fall quarter. Hours and credits (maximum 2 s.h.) by arrangement. Prerequisite: adequate training in histology or Dr. HETHERINGTON AND STAFF cytology.

M203. Anatomy of the Nervous System.—A study of the gross and microscopic structure of the human central nervous system, special attention being paid to the structural and functional relationships between the various nuclei and fiber tracts. Winter quarter. Hours and credits (maximum 4 s.h.) by arrangement. Prerequisite: Anatomy M201. Dr. Hetherington

BACTERIOLOGY AND IMMUNOLOGY

M221. Bacteriology and Immunology.—This course is devoted primarily to the study of the biological and immunological relationships of micro-organisms in disease. It is not a course in bacteriologic technique. An additional course in technical methods is provided for those who require it. hours lecture and 8 hours laboratory per week in fall quarter. Prerequisites: courses in general zoology, general botany, histology and comparative anatomy, general and organic chemistry. 4 s.h. DR. D. T. SMITH AND STAFF

^{*} Not offered in 1941-42.

M323. Advanced Bacteriology and Immunology.—This course is intended primarily for graduate students majoring in bacteriology, but it is also available as a minor to such other graduate students in related fields, to whom it is recommended by respective supervising committees and with the approval of the Department of Bacteriology. 8 s.h. DR. D. T. SMITH AND STAFF

BIOCHEMISTRY

- M241. General Biochemistry.—Three lectures, four laboratory periods of three hours each, and one two-hour seminar weekly for eleven weeks. Prerequisites: general chemistry, organic chemistry, elementary, physical and analytical chemistry and at least one year of college biology. Winter quarter.

 6 s.h. Drs. Perlzweig and Taylor, and Staff
- M242. Biochemical Preparations.—Eight hours laboratory with conferences when necessary. This course involves detailed study of the chemistry of enzymes, proteins, fats, carbohydrates and derivatives. Prerequisite: Biochemistry M241. Spring, summer, fall quarters. Hours by arrangement. 2 s.h. DR. TAYLOR AND STAFF
- M243-244. Physical Chemical and Colloid Chemical Principles of Biochemistry.—Special emphasis is given to the structure and physical chemistry of proteins, enzymes, viruses, etc. Two hours per week throughout the year. Dr. Neurath
- M341. Pathological Chemistry.—Seminar course devoted to a detailed study of the chemical and physical chemical aspects of normal and abnormal metabolism. Two hours per week by arrangement. Prerequisites: Biochemistry M241 and Physiology M251-2. Spring quarter.

 Laboratory work consisting chiefly of blood and urine analysis in relation

to problems discussed will be provided for students desiring it.

Drs. Perlzweig, Taylor, and M. L. C. Bernheim

- M343. Immunochemistry.—A seminar dealing with the fundamentals of immunological reactions in general and with the chemistry of antigen-antibody reactions in particular. 2 s.h. DRS. MARTIN AND NEURATH
- M345. Biological Oxidations.—A seminar devoted to a study of the thermodynamics, kinetics, and mechanisms of biological oxidation-reduction systems. 2 s.h. Dr. Coolidge and Staff

PHYSIOLOGY, PHARMACOLOGY, AND NUTRITION

M261-2. Human Physiology and Pharmacology.—Six lectures and twenty laboratory hours per week. Prerequisites: Anatomy M201 and Biochemistry M241 (or equivalents) and at least one year of college physics. Spring quarter. Credits depending on work taken. (Maximum 8 s.h.)

The lectures in pharmacology, two hours per week, are included in this course and may be taken separately or omitted, depending upon the needs of the student. Dr. Eadie and Staff

M263. Physiology of Digestion, Metabolism, and Nutrition.—Two hours

lectures and conferences and the equivalent of one laboratory period of three hours per week. Prerequisite: Biochemistry M241. Spring quarter. 2 s.h.

This course constitutes a part of Physiology M261-2, but may be taken separately.

DR. W. J. DANN, EADIE, AND F. M. BERNHEIM

M363-4. Advanced Seminar in Nutrition.—Prerequisites: Biochemistry M241 and Physiology M251 or equivalents. Two hours weekly. 4 s.h.

Dr. Dann

ADVANCED DEGREES CONFERRED JUNE 3, 1940

MASTER OF ARTS

Alexander, Ellen Amore, Salvatore Thomas Andrews, Mary Ruth Barber, Veva Alberta Barrett, William Robert, Jr. Baxt, Victor Joseph Biggerstaff, Frank Malcolm Black, Mercedes A. Saez Boatwright, Eleanor Miot Boyer, Charles Chester Brown, Mary Ellen Buck, Walter Roger, III Burhans, Allison Stilwell Butts, Virginia Frye Carper, Doris Viola Caskey, James Edward, Jr. Cleveland, Vela Howell Cole, Elfreida Louise Condron, Clara Mae Craig, Ruth Winifred Curington, Orrel Vivian Decker, John Peter Dibeler, Vernon Hamilton Doby, Julia Lillian DuBose, Charles Gerald Edwards, Allen Braxton Fitzgerald, Mary Frances Fleming, Dorothy Hight Frey, Ellen Frances Garrison, John Leland George, Charles William Gladfelter, Charles Herbert, Jr. Godbold, John Jake Goertz, Clare Marian Greene, John Thomas Guy, John Ansley Hamsher, Carl Miller Hanes, Virginia Lee Harrison, Mary Elizabeth Heilman, Carl Ernest Helm, Robert Meredith, Jr. Henley, Mary Clifton Herring, Benjamin Marshal Hightower, John Devereaux Hoagland, Elizabeth Huntley, Dorothy Bell Hutchinson, Lois Bernice Jennings, Louis Girton Johnston, Robert Ward Keene, Thelma Beazley Kilmer, Hulda Kinlaw, Sara Lorine Lethbridge, Berry Biccomb, Jr. Levy, Edward David Lewis, Florence L'Dora Lewis, James Howard

Long, John William, Jr. McAlpine, Paul Hamilton McCaslin, Phoebe Elizabeth Marston, Frederic Carver, Jr. Massey, Calvin LeRoy Mattocks, Millicent Elizabeth Meredith, Evelyn Caroline Tucker Mickle, Walter Alvin, Jr. Ostwalt, Jay Harold Owen, Ray Anderson Owens, William Hector Parker, Anne Elizabeth Pederson, Peder Malvin Phillips, Beula Mayra Potts, Charlie Kinchin Powell, Annie Mae Prouty, Leonard Augustus Rand, Robert Collom Rapp, Marvin August Reavis, Rebecca Ann Richards, Claud Henry, Jr. Roberg, Jane Robertson, Alfred Parkhill Robinson, Blackwell Pierce Robinson, Frances Rosser, Lillian Evelyn Rutledge, Ivan Cate Schultz, Harold Scott, Worthy Kincaid, Jr. Simmons, Willard Russell Singletary, Mary Leora Slay, James Matthew Slone, Jewell Edwina Spencer, Dale Kirk Steelman, Max Randolph Stewart, Paul Dekker Stewart, Truman Joel Still, Evedon Howell Sturm, Albert Lee, Jr. Styer, Mildred Miller Swicegood, Ella Mae Cox Tanner, Martha Malinda Tate, Russell Sage, Jr. Teagarden, Lucetta Jane Tolbert, Nancy Undine Waite, Édwin Emerson, Jr. Waltcher, Irving Warren, Ida Leane Weaver, Mary Virginia White, Harry Arthur Whitener, Catherine Viola Wiggins, Elizabeth Lewis Williams, Rose Elizabeth Wolf, Mary Hubbard Wood, Mary Rose

MASTER OF EDUCATION

Barber, Daniel Clyde, Jr. Bee, Carl Edward Bryan, Colgan Hobson Burdette, Orral Lorain Burgess, John Evans Caudill, Dennis D. Crockett, Cora Mae Douglas, Nelle Chappell Dowd, Orren Edwards Dozier, Vernon Elliott Finklea, John James, Jr. Galphin, Annie Louise Gerow, James Anthony Gillingham, Samuel Wilson Hagaman, Jake George Harper, Eunice Virginia Mitchell Hawthorne, Mark Fant Helm, James Thomas, Jr. Hendren, Albert Lee Hess, Harvey Carleton Hodges, Carl V. Hozik, Michael Hunter, Merle Wallace Hurley, Myrtis Tilden Hutchinson, Merrill Eugene Jones, William Robert Keene, Ellis Leaman Keller, William Wates Knobeloch, Dorothy Elsa Ledbetter, Jap Lindsay, Charles Stuart McCabe, Vance Alvin McDaniel, Louise Dozier

McGuire, Velma Ruth

Mathews, John Cornelius, Jr. Metz, Earl Clarence Nichols, Bertha Pafford, Waldo Cecil Palmer, Percy Robert Parker, John Harry Parnelle, Mildred Phillips, Dorothea Jo Porter, Gilbert Rodman Pratt, Francis Marion Pratt, George Thomas Ratcliff, Billy Orville Richardson, John William, Jr. Richmond, John Doody Robinson, Thomas Eugene Schaller, Charles Burnett Sims, Alice Skiles, Amos F. Slacum, Emerson Phillips Smith, William Arthur Stone, Henry Clarence Swearingen, Mildred Emily Terry, Charles Edwin, Jr. Warren, John Sharpe Weller, Wayne White, Frank Dudley Williams, Margaret Lawrene Williams, Olan Yarnall Williams, Roger Augustus Wilson, Joseph Bobula Woodruff, Margaret Wylie, Claude Young, William Vincent Zarfoss, L. Harold

DOCTOR OF PHILOSOPHY

Anderson, Marcia Lee, A.B., Bryn Mawr College; A.M., Duke University.
Dissertation: John Webster's "The White Devil" and "The Duchess of Malfi": A Critical Study.

Bennett, Walter Hartwell, A.B., University of Richmond; A.M., Duke University.

Dissertation: American Concepts of Federalism from the Colonial Period to 1900.

Breslow, David Samuel, B.S., College of the City of New York.

Dissertation: An Investigation of the Perkin Reaction and of Certain Related Condensations.

CANADAY, ERNEST FRANKLIN, A.B., William Jewell College; A.M., University of Missouri.

Dissertation: The Sum of the Divisors of a Polynomial.

CAUSEY, NELLE BEVEL, B.S., College of the Ozarks; A.M., University of Arkansas.

Dissertation: Ecological and Systematic Studies on North Carolina Myria-pods.

DeTurk, William Ernest, A.B., A.M., University of Illinois.
Dissertation: The Parasites and Commensals of Some Crabs of Beaufort,
North Carolina.

Duke, Kenneth Lindsay, A.B., Brigham Young University.

Dissertation: The Germ Cells of the Rabbit Ovary from Sex Differentiation to Maturity.

EWING, THOMAS NEWELL, JR., A.B., DePauw University; A.M., Syracuse University.

Dissertation: A Study of Certain Factors Involved in Changes of Opinion

in Social Situations.

GIER, LELAND JACOB, B.S., M.S., Kansas State Teachers College. Dissertation: Root Systems of Bright Belt Tobacco.

GILBERT, PAUL WILNER, A.B., A.M., University of Rochester. Dissertation: N-to-One Mappings of Linear Graphs.

HADLEY, ELBERT HAMILTON, B.S., M.S., University of Michigan.

Dissertation: A Study of the Vapor Phase Fluorination of Methane.

LUTTRELL, EVERETT STANLEY, B.S., University of Richmond; A.M., Duke University.

Dissertation: The Morphology and Development of Some Fungi Parasitic

on Trees within the Duke Forest.

MARTIN, ABRAM VENABLE, JR., A.B., Presbyterian College.

Dissertation: Monotone Transformations of Non-Compact Two-Dimensional Manifolds.

Maryott, Arthur Allen, A.B., Duke University.
Dissertation: The Electric Polarizations and Dipole Moments of Some Organic Compounds.

MORRIS, WILLIAM LIND, B.S., Carnegie Institute of Technology; M.S., University of Pittsburgh.

Kohnstamm.

Dissertation: Kinetic-Harmonic Systems.

MUMFORD, CARY GARDNER, A.B., Wake Forest College; A.M., Duke University.

Dissertation: Topics in Double Fourier Series.

Nelson, Melvin Frederick, B.S., Mississippi State College; A.M., Municipal University of Omaha.

Dissertation: The International Status of Korea, 1876-1910.

PLANTINGA, CORNELIUS A., A.B., Calvin College; A.M., University of Michigan.

Dissertation: The Personalist Philosophies of William Stern and Philipp

STROVEN, CARL GERHARDT, A.B., A.M., Stanford University. Dissertation: A Life of Charles Warren Stoddard.

STUCKEY, JAMES MORLAN, B.S., Centenary College; A.M., Duke University. Dissertation: The Vapor Pressures of Some Organic Compounds.

TAYLOR, CHARLES THEODORE, B.S., University of Arizona; A.M., Duke University.

Dissertation: Some Relationships between the Size of the City and Per

Capita Governmental Cost and Debt.

Toole, EBEN RICHARD, B.S., New York State College of Forestry; A.M., Duke University.

Dissertation: Mimosa Wilt Caused by Fusarium Perniciosum Hepting.

Young, DeWalt Secrist, A.B., Cornell College; A.M., Duke University.
Dissertation: The Vapor Phase Fluorination of Certain Organic Compounds and a Detailed Study of the Influence of Progressive Nitrogen Dilution in the Case of Ethane.

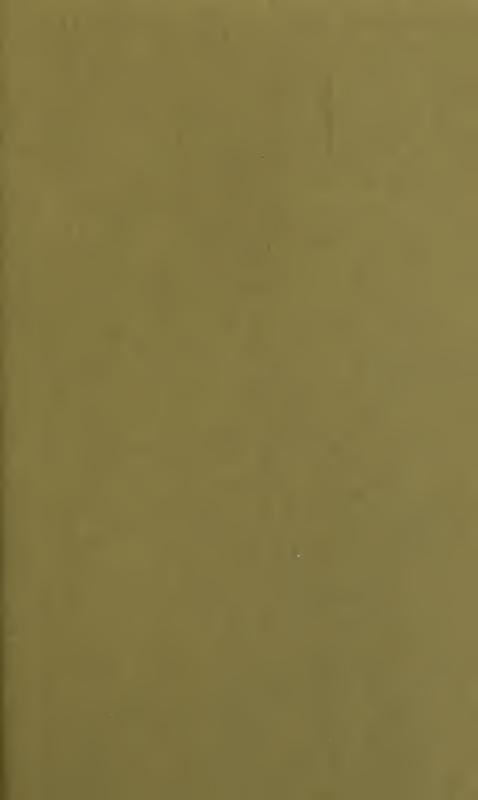
SUMMARY	0F	ENROLLMENT	IN	THE	GRADUATE	SCHOOL

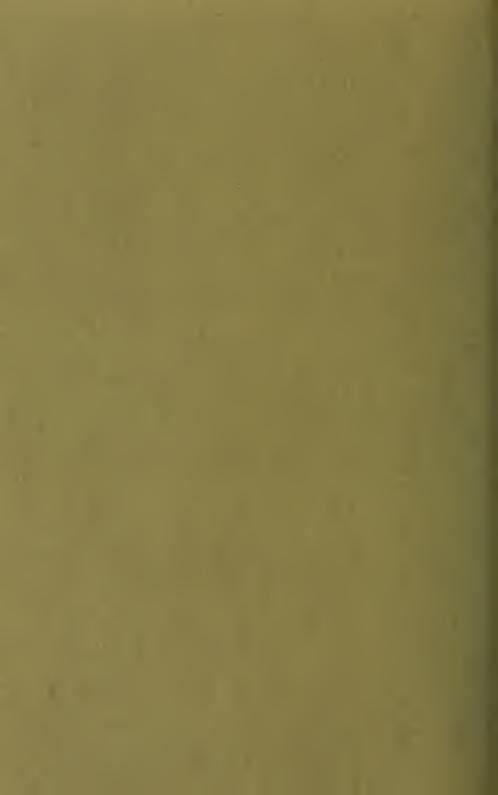
Graduate students, Academic Year 1940-41	906
Total Deduct for duplications.	
Total Furollment	1 218











April, 1941

VOLUME 13

NUMBER 5-BC)

BULLETIN OF DUKE UNIVERSITY

The School of Law



MARKEDCOPY

ANNOUNCEMENT FOR 1941-1942

72. R. 18.71-6 PUBLISHED BY THE UNIVERSITY

BY 14. DURHAM, NORTH CAROLINA

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ANNUAL BULLETINS

For General Bulletin of Duke University, apply to *The Secretary*, Duke University, Durham, N. C.

For Bulletin of Undergraduate Instruction, apply to *The Secretary*, Duke University, Durham, N. C.

For Bulletin of The Graduate School of Arts and Sciences, apply to The Dean of the Graduate School, Duke University, Durham, N. C.

For Bulletin of The School of Law, apply to The Dean of the School of Law, Duke University, Durham, N. C.

For Bulletin of The School of Medicine, apply to The Dean of the School of Medicine, Duke University, Durham, N. C.

For Bulletin of The School of Nursing, apply to The Dean of the School of Nursing, Duke University, Durham, N. C.

For Bulletin of The School of Religion, apply to The Registrar of the School of Religion, Duke University, Durham, N. C.

For Bulletin of The School of Forestry, apply to The Dean of the School of Forestry, Duke University, Durham, N. C.

For Bulletin of The College of Engineering, apply to *The Secretary*, Duke University, Durham, N. C.

For Bulletin of The Summer School, apply to The Director of the Summer School, Duke University, Durham, N. C.

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BULLETIN

OF

DUKE UNIVERSITY

THE SCHOOL OF LAW



ANNOUNCEMENT FOR 1941-1942

DURHAM, NORTH CAROLINA 1941



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UNIVERSITY CALENDAR

- Sept. 17. Wednesday-Registration of Law Students.
- Sept. 18. Thursday—Commencement of Instruction.
- Nov. 20. Thursday—Thanksgiving Day: a holiday.
- Dec. 11. Thursday—Duke University Day.
- Dec. 20. Saturday—1:00 P.M. Christmas recess begins.

1942

- Jan. 5. Monday—8:10 A.M. Instruction is resumed.
- Jan. 17. Saturday-Mid-year examinations begin.
- Jan. 31. Saturday—Last day for matriculation for second semester.
- Feb. 2. Monday—Second semester begins.
- March 21. Saturday-1:00 P.M. Spring vacation begins.
- March 30. Monday—8:10 A.M. Instruction is resumed.
- May 22. Friday-Final examinations begin.
- June 6. Saturday—Commencement opens; Faculty Breakfast for Law Seniors,
- June 7. Sunday—President's Address to Graduating Class.
- June 8, Monday—Commencement Address; Graduating Exercises.



I. FACULTY

*WILLIAM PRESTON FEW, A.B., A.M., Ph.D., Litt.D., Ed.D., L.H.D., LL.D. PRESIDENT OF THE UNIVERSITY

**ROBERT LEE FLOWERS, A.M., LL.D. President of the University

H. CLAUDE HORACK, Ph.B., LL.B., LL.D.

DEAN AND PROFESSOR OF LAW

Ph.B., 1899, LL.B. 1900, State University of Iowa; LL.B. 1904, Harvard University; LL.D. 1937, Tulane University; LL.D. 1939, Wake Forest College; Assistant Professor of Law, University of Wisconsin, 1904-07; Professor of Law, State University of Iowa, 1907-30; University of Michigan, summer 1922; University of Wisconsin, summer 1924; University of Southern California, summer 1931; Stanford University, summer 1936; Adviser, Council of Legal Education and Admissions to the Bar of the American Bar Association, 1927-30, member of Council, 1940; Secretary, Association of American Law Schools, 1926-28, President, 1929; Professor of Law, Duke University, 1930-34; Dean and Professor of Law, since 1934.

BRYAN BOLICH, A.B., B.A. (Juris.), M.A., B.C.L.

PROFESSOR OF LAW

A.B. 1917, Duke University; Duke University Law School, 1919-21; B.A. (Juris.) 1923, B.C.L. 1924, M.A. 1927, Oxford University; general practice, 1924-27; Professor of Law, Duke University, since 1927.

JOHN S. BRADWAY, A.B., A.M., LL.B.

PROFESSOR OF LAW AND DIRECTOR OF THE LEGAL AID CLINIC

A.B. 1911, A.M. 1915, Haverford College; LL.B. 1914, University of Pennsylvania; general practice, 1914-29; Legal Aid Society of Philadelphia, 1914-20; chief counsel, Philadelphia Legal Aid Bureau, 1920-22; Secretary, National Association of Legal Aid Organizations, 1923-40, President, 1940-41; Visiting Professor of Law and Director of the Legal Aid Clinic, University of Southern California, summer 1928; Professor of Law and Director of the Legal Aid Clinic, University of Southern California, 1929-31; Professor of Law and Director of the Legal Aid Clinic, Duke University, since 1931.

THADDEUS DILLIARD BRYSON, LL.D.

Professor of Law

Emory and Henry College, 1889-90; University of North Carolina, 1891-95; LL.D. 1938, Emory and Henry College; general practice, 1895-1918; Solicitor, 20th Judicial District, North Carolina, 1908-16; Judge, Superior Court, North Carolina, 1918-26; general practice, 1926-27; Professor of Law, Duke University, since 1927.

DAVID F. CAVERS, B.S., LL.B.

Professor of Law

B.S. in Econ. 1923, University of Pennsylvania; LL.B. 1926, Harvard University; general practice, 1926-29; Instructor in Law, Harvard University, 1929-30; Assistant Professor of Law, West Virginia University, 1930-31; Visiting Professor of Law, Yale University, first semester, 1936-37, University of Chicago, 1940-41; Assistant Professor of Law, Duke University, 1931-32; Professor of Law, Duke University, since 1932.

ELVIN R. LATTY, B.S., J.D., J.Sc.D.

Professor of Law

B.S. 1923, Bowdoin College; J.D. 1930, University of Michigan; J.Sc.D. 1936, Columbia University; Instructor in Romance Languages, University of Vermont, 1923-27; general practice, 1930-33; Special Fellow, Columbia University, 1933-34; Associate Professor of Law, University of Kansas, 1934-35; Professor of Law, University of Missouri, 1935-37; George Washington University, summer 1937; Stanford University, summer 1938; Professor of Law, Duke University, since 1937.

^{*} Died, October 16, 1940. ** Elected, January 29, 1941.

CHARLES LUCIEN BAKER LOWNDES, A.B., LL.B., S.J.D.

Professor of Law

A.B. 1923, Georgetown University; LL.B. 1926, S.J.D. 1931, Harvard University; general practice, 1926-27; Assistant Professor of Law, Georgetown University, 1927-28; Professor of Law, Georgetown University, 1928-30; Research Fellow, Harvard Law School, 1930-31; Professor of Law, Georgetown University, 1931-34; Professor of Law, Duke University, since 1934.

MALCOLM McDERMOTT, A.B., LL.B.

Professor of Law

A.B. 1910, Princeton University; LL.B. 1913, Harvard University; general practice, 1913-30; Dean, College of Law, University of Tennessee, 1920-30; University of Southern California, summer 1929; Professor of Law, Duke University, since 1930.

DOUGLAS BLOUNT MAGGS, A.B., J.D., S.J.D.

Professor of Law

A.B. 1922, J.D. 1924, University of California, S.J.D. 1926, Harvard University; general practice, 1924-25; Assistant Professor of Law, University of California, 1926-27; Professor of Law, University of Southern California, 1927-30; Visiting Professor of Law, Columbia University, 1928-29; Yale University, second semester, 1935-36; University of California, summer 1927; Cornell University, summer 1928; University of Chicago, summer 1929; Stanford University, summer 1935; University of North Carolina, summer 1936; Special Assistant to the Attorney General of the United States, 1938-39; Professor of Law, Duke University, since 1930.

J. DOUGLASS POTEAT, A.B., LL.B., J.S.D.

Professor of Law

A.B. 1923, LL.B. 1926, Furman University; J.S.D. 1933, Yale University; general practice, 1926-30, 1933-36; Associate Professor of Law, Furman University, 1930-33; University of North Carolina, summer 1940; Professor of Law, Duke University, since 1936.

WILLIAM R. ROALFE, LL.B.

LAW LIBRARIAN

LL.B. 1922, University of Southern California; general practice, 1923-25; Law Librarian, University of Southern California, 1927-30; President, American Association of Law Libraries, 1935-36; Law Librarian, Duke University, since 1930.

PAUL H. SANDERS, A.B., LL.B.

Associate Professor of Law

A.B. 1931, Austin College; LL.B. 1934, Duke University; general practice, 1934; Assistant to Director of National Bar Program, American Bar Association, 1934-36; Secretary, Criminal Law Section, American Bar Association, since 1940; Assistant Professor of Law, Duke University, 1936-40; Associate Professor of Law, since 1940.

HAROLD SHEPHERD, A.B., J.D.

Professor of Law

A.B. 1919, J.D. 1922, Stanford University; Dean and Professor of Law, University of Wyoming, 1922-23; Associate Professor of Law, Stanford University, 1923-26; Professor of Law, Stanford University of Law, Stanford University of Chicago, 1930-31; Columbia University of Chicago, 1930-31; Columbia University, summer 1929; University of Minnesota, summer 1930; Stanford University, summer 1932; Dean and Professor of Law, University of Washington, 1931-36; Professor of Law, University of Cincinnati, 1936-39; Secretary, Association of American Law Schools, 1938-40, President, 1941; Professor of Law, Duke University, since 1939.

EDWIN CONSTANT BRYSON, LL.B.

Assistant in Legal Aid Clinic

University of North Carolina, 1922-26; LL.B. 1937, University of Oregon; general practice, 1927-30; Legal Aid Clinic Staff, Duke University, since 1931.

ALTON J. KNIGHT, A.B., LL.B.

Assistant in Legal Aid Clinic

A.B. 1926, LL.B. 1933, Duke University; in general practice, since 1933; Legal Aid Clinic Staff, Duke University, since 1938.

CHARLES HENDERSON MILLER, A.B., LL.B.

Assistant in Legal Aid Clinic

A.B. 1928, LL.B. 1934, Duke University; Legal Aid Clinic Staff, Duke University, since 1931.

ALLSTON STUBBS, A.B., LL.B., LL.M.

Assistant in Legal Aid Clinic

A.B. 1930, LL.B. 1932, University of North Carolina; LL.M. 1933, Duke University; in general practice, since 1933; Legal Aid Clinic Staff, Duke University, since 1936.

MARY SIMMONS COVINGTON, A.B., LL.B.

RESEARCH LIBRARIAN, SCHOOL OF LAW

A.B. 1905, Shorter College; LL.B. 1922, George Washington University; general practice, 1924-30; Research Librarian, School of Law, Duke University, since 1930.

KATHARINE B. DAY

ASSISTANT CATALOGER, SCHOOL OF LAW LIBRARY

Greenville Woman's College, 1924-27; B.S. in Library Science 1928, Simmons College; Librarian. Teachers Library, Winston-Salem, N. C., 1928-31; Assistant Cataloger, School of Law Library, Duke University, since 1931.

MARIANNA LONG

HEAD CATALOGER, SCHOOL OF LAW LIBRARY

Mitchell College, 1923-25; A.B. 1927, Woman's College of the University of North Carolina; B.S. in Library Science 1928, Emory University; Head Cataloger, School of Law Library, since 1928.

HELEN MILDRED KENDALL, A.B.

REGISTRAR

A.B. 1925, DePauw University; graduate work, University of Wisconsin, 1934; Registrar, School of Law, Duke University, since 1935.

LAW SCHOOL COMMITTEE OF THE BOARD OF TRUSTEES

Willis Smith, Raleigh, North Carolina.

James A. Bell, Charlotte, North Carolina. W. R. Perkins, New York City. B. S. Womble, Winston-Salem, North Carolina.

II. ORGANIZATION, EQUIPMENT, AND SPECIAL ACTIVITIES

HISTORY AND ORGANIZATION

Legal instruction in Trinity College dates from 1850, but it was not until 1868 that professional training in law was offered. The two chairs in the Department of Law were those of National and Constitutional Law, and Common and Statute Law. President Braxton Craven occupied the former from 1868 until his death in 1882. Outstanding members of the bench and bar were specially engaged, in given years, to lecture on particular subjects. Complete instruction was given "by daily lectures and regular examinations," and students were "fully prepared to obtain license."

In 1882 the Department of Law was discontinued. In 1891 instruction in law was resumed, with the appointment of the Honorable A. C. Avery, Associate Justice of the Supreme Court of North Carolina, as dean of the Law School, and continued until 1894.

The School of Law of Trinity College was founded in the summer of 1904 upon an endowment established by James B. Duke and Benjamin N. Duke. Samuel Fox Mordecai organized the School and was its dean until his death in 1927. Its establishment set a new standard in Southern legal education in that it was the first school to require college work as preliminary to law study. It required the completion of two years of college work as prerequisite to entrance, the case method was used as the basis of instruction, and the completion of three years of resident study was required for a law degree.

In 1924 the School of Law of Trinity College became the Duke University School of Law pursuant to the establishment of the Duke Endowment. In 1930 the School was moved into its new building, the Faculty and Library were greatly increased, and the activities of the School broadened. In 1931 the entrance requirement was raised from two to the present requirement of three years of college work. The School of Law is a member of the Association of American Law Schools and is on the "Approved List" of the American Bar Association.

The ideas of the founder with reference to the University and its training of lawyers are thus expressed in the indenture and deed of trust establishing the Duke Endowment:

I have selected Duke University as one of the principal objects of this trust, because I recognize that education, when conducted along sane and practical, as opposed to dogmatic and theoretical lines, is, next to religion, the greatest civilizing influence. I request that this institution secure for its officers, trustees and faculty, men of such outstanding character, ability and vision as will assure its attaining and maintaining a place of real leadership in the educational world, and that great care and discrimination be exercised in admitting as students only those whose previous record shows a character, determination and application evincing a wholesome and real ambition for

life. And I advise that the courses at this institution be arranged, first, with special reference to the training of preachers, lawyers and physicians, because these are most in the public eye, and by precept and example can do most to uplift mankind.

PURPOSES AND METHODS OF INSTRUCTION

The curriculum of the School of Law provides thorough preparation for the practice of law in any State. It affords in the third year opportunities for specialization in particular branches of the law.

In carrying out the trust imposed by the Duke Indenture, the School of Law seeks to have the student acquire knowledge and comprehension not only of legal doctrine, but also of the judicial process and of the social, economic and political problems with which law and lawyers must deal. The method of instruction employed compels analysis of judicial opinions and inquiry into the nonlegal as well as the legal considerations which underlie them. In appropriate courses, special consideration is given to the work of the legislative and administrative agencies of government. Scope for creative student work is provided by seminar courses and the courses in Current Decisions.

The student is not left to obtain practical training in his first years of practice. Instruction is offered in legal research and briefing; there is a practice course; and third-year students participate in the work of the Legal Aid Clinic. The students, through their Bar Association, engage in activities designed to awaken in them a sense of the lawyer's responsibilities and a familiarity with the professional organizations through which a lawyer may and should contribute to the well-being of his profession and of society.

The first-year program of study is set forth on page 21; the secondand third-year programs on pages 22 and 23; the separate courses are described on pages 26 through 32.

The New Program

The first-year program now prescribed is somewhat different from that heretofore prescribed. The second- and third-year programs which the faculty plans to offer to the class entering the School in 1941 will also differ somewhat from those set forth on pages 22 and 23.

These changes represent an effort by the faculty to correlate legal education even more closely than it has been correlated in the past with the practice of the law and the social, economic and political problems with which the law of today, the courts and other governmental agencies of today, and hence the lawyers of today are concerned.

The case method of study will be retained throughout the first year and a half of the student's legal education and in a large part of his third year. It will be supplemented, especially in the second half of the second year, by other methods which will require the student to deal with problems closely resembling those which confront a practicing lawyer in a way similar to the way such problems are dealt with in practice. Certain of the courses heretofore given will be combined and integrated so that the student's work will involve, as does the lawyer's,

cutting across traditional course lines. Through the division of the second-year class into small groups in the second semester of that year closer contact between the individual student and the instructors will be fostered. In this way, it is believed that there can be recaptured some of the advantages of the apprentice system as it once existed in the best law offices—advantages comparable to those derived in medical education from participation by students in the medical and surgical clinics and ward rounds of their instructors. Thus the student should develop self-reliance, initiative, and resourcefulness in meeting practical legal problems. Facility in legal research and writing will be promoted by the expanded Legal Writing course in the first year as well as by the changed method of instruction in part of the second- and third-year work.

In the third-year program, the plan is to broaden the student's legal education, especially in those fields most affected by governmental controls. The lawyer today must have the traditional equipment for the practice of law, but he must also understand modern business and financial institutions and methods. He must understand the regulatory schemes and the working of the regulatory agencies to which more and more of business activities have been subjected. The planned third-year program has been designed to create in the law student this understanding without which he cannot properly advise and represent his clients.

THE LAW SCHOOL BUILDING

The Law Building, like all other structures on the main campus of Duke University, is in Tudor Gothic style of colorful Cambrian stone from the Duke University quarries. It was occupied by the School of Law for the first time in September, 1930. In it are classrooms, seminar rooms, offices for Faculty and Staff, quarters for the Legal Aid Clinic and for the Duke Bar Association, a courtroom equipped for trial court and appellate court sessions, and the Law Library.

THE LAW LIBRARY

The Law Library contains a collection of nearly seventy thousand volumes, which is the largest law school collection in the South. It consists of American and English statutory and case law; a collection of Continental Law materials; treatises, digests, encyclopedias; the various selected case series; a comprehensive collection of legal periodicals; and publications in the fields of history, economics, government, and the other social sciences, supplemental to the strictly legal materials. The Library receives every current legal periodical of general interest printed in the English language.

There are several thousand additional volumes of a legal nature in the main library building, immediately adjoining the Law School, as well as the general collection of nearly a half million volumes, to all of which the law students and Faculty have convenient access.

The Law Library is administered by a professionally trained staff and is open to the public daily throughout the year and in the evenings as well whenever the Law School is in session.

THE LEGAL AID CLINIC

A Legal Aid Clinic was organized at the School of Law in 1931 under the direction of Professor John S. Bradway, who had directed similar undertakings in Philadelphia and Los Angeles. The purpose of the Clinic is threefold: to give the student experience in handling actual cases; to develop creative skills, techniques and mental habits; to encourage a sense of responsibility to client, court, profession and community. The student is obliged to synthesize his knowledge in applying it to concrete situations which may often cut across course boundaries. He is introduced to the technique of fact gathering, the strategy of a law suit, the handling of clients, the management of a law office. A series of exercises are conducted in legal research and briefing leading in the first semester to the writing by each student of a trial brief and in the second semester an appellate brief for a lawyer in active practice. Classroom work involves laboratory exercises in preparation for the handling of actual cases. The law practice in the Clinic is of a sort calculated to stress the ethical responsibilities of the lawyer and the social implications of his work. Instruction in the handling of the actual cases is individualized. Training in the art of interprofessional cooperation is provided through contacts between the Clinic and various agencies of social welfare in North Carolina.

The Legal Aid Clinic is in effect an active law office offering the student, under supervision, experience in interviewing clients, investigation of facts, preparing cases for adjustment or for trial in court, writing legal documents, briefing, and other tasks familiar to the practicing attorney. Approximately four hundred persons a year apply for the services of the Clinic. Only those applicants who are unable to pay counsel fees, and only those cases where there is no opportunity for a contingent fee are accepted.

The activities of the Clinic are centered in a suite of offices in the Law School Building, and in an interviewing office in the business center of Durham. In addition to the Director, a staff of four members of the North Carolina State Bar assist in the educational and supervisory activities of the Clinic and in representing its clients in court proceedings. The course is required of members of the third-year class who have not been selected to take the course in Current Decisions II. The work in the Clinic in no way conflicts with that in the Practice Court.

THE PRACTICE COURSE

The practice course in the School of Law is under the direction of Judge T. D. Bryson, for eight years judge of the Superior Court of the Twentieth Judicial District of North Carolina. The object of the course is to offer third-year students an opportunity to visualize by actual experience the application of the principles of law imparted in other courses.

The course features trial court practice in both civil and criminal actions, appellate practice, the drawing of contracts and wills, making

abstracts of title, and drafting of other legal papers incident to the work of the active legal practitioner. In order that the work may correspond to the work of a trial court, a courtroom with the usual appointments has been provided.

LEGAL PERIODICALS

The School of Law publishes a quarterly, Law and Contemporary Problems, under the editorship of Professor Cavers and Associate Professor Sanders. This periodical, now in its eighth volume, presents in each issue a symposium on a problem of current legal importance, in which the interrelated social and economic, as well as legal, factors are discussed by writers of competence in these respective fields. Where student research may contribute to the understanding of the legal aspects of such problems, student writings are accepted for publication. Included among the topics discussed in the first eight volumes of Law and Contemporary Problems are food and drug control, low-cost housing, federal criminal laws, industrial and group life insurance, instalment selling, migratory divorce, alimony, expert testimony, social security legislation, the compensation of the motor accident victim, the Securities Act of 1933, price discrimination and price cutting, collective bargaining under the Wagner Act, the wage and hour law, medical care, the Sherman Antitrust Act, federal income and estate taxation, railroad reorganization, alcoholic beverage control, and combating the loan shark.

The circulation of Law and Contemporary Problems extends not only to members of the legal profession and law libraries throughout the country, but also to industrial and financial concerns, governmental agencies, and public and general university libraries. Individual issues are not in-

frequently used as materials for study in university courses.

The Duke Bar Association has published since 1933 the *Duke Bar Association Journal* in which appear reports of addresses made before the Association by distinguished guests, proceedings of the Association at its regular meetings, and items of interest concerning the School. To afford a medium for the publication of the student notes and comments on recent important decisions prepared in the Current Decisions course without necessitating the inclusion in the quarterly of the department of student work usual in "law reviews," the *Journal* publishes such notes and comments as are deemed by the editors to be of special merit. Professor Cavers serves as adviser to the student editorial board of the *Journal*.

THE DUKE BAR ASSOCIATION

The Duke Bar Association was established in the spring of 1931. It is composed of all the students of the Law School and is organized along the lines of the American Bar Association. Its purpose is to introduce the student to the problems considered by the bar in professional organizations and to develop professional consciousness and responsibility. It publishes the *Duke Bar Association Journal*, described in the preceding section. Its activities are carried on by the students with the co-operation of Dean Horack of the Law Faculty as general adviser.

III. GENERAL INFORMATION

MATRICULATION, REGISTRATION, AND ENROLLMENT

On the day of registration, September 17, 1941, the applicant must obtain from the Dean of the Law School an admission card, indicating that he is entitled to register. Registration is conducted in the Law Building. All students, both old and new, are required to register at the beginning of each semester, at which time class schedule and course cards must be filled out and approved. Students matriculating in either semester at a date later than that prescribed in this catalogue shall pay to the Treasurer a penalty of \$5.00 for late registration. Instruction will begin in all classes on Thursday, September 18, 1941.

All students are admitted subject to the rules of the University and of the School of Law, and continuance in the School is conditioned upon the observance of such rules.

(Many states now require that the student, prior to or shortly after beginning the study of law, must register with the board of bar examiners of the state in which he expects to practice. Each student should write to the secretary of the board of bar examiners of such state in order to be sure that all requirements are fulfilled.)

FEES AND EXPENSES

Tuition and registration fees are due at the beginning of each semester. The matriculation fee is \$25.00 a semester. The tuition fee is \$100.00 a semester. A damage fee of \$1.00 is collected at the beginning of the first semester only, an athletic fee of \$5.00 at the beginning of each semester, a library fee of \$5.00 each semester, and a medical fee of \$5.00 each semester. The graduation fee, payable by all students to whom a degree is awarded, is \$10.00.

Payment of the athletic fee entitles the student to admittance to all athletic events on the campus.

The payment of the medical fee entitles the student to full medical and surgical care, with the exceptions noted below. This service is under the direction of the University Physician with the co-operation of the Staff of Duke Hospital. It includes hospitalization, medical and surgical care, drugs, dressings, X-ray studies, and ward nursing. A charge for board is made at the same rate as in the University dining halls, and student meal tickets for these halls are accepted in payment of this board. Refraction of eyes, treatment of teeth and of all chronic conditions, such as the removal of diseased tonsils, are not included in this service. The cost of any necessary braces and orthopedic appliances as well as of special nursing must be borne by the student.

Furnished double rooms may be secured in the graduate dormitory on the West Campus at \$62.50 per person per semester. A few single rooms are available at \$75.00 per semester. There are a very limited

number of double rooms on the East Campus (about a mile and a half from the Law Building) at \$30.00 to \$50.00 per person per semester.

A group of log cabins, a part of the dormitory system, especially designed as a study center for law students is located in the Duke Forest about five minutes' walk from the Law Building. These cabins, five in number, including a large cabin for use as a social hall, house thirty-two students, about one third of the space being allotted to each of the three law classes. Furnished double rooms in the log cabins may be secured at \$40.00 per person per semester.

These charges in each case include heat, light, water, and janitorial

service but do not include pillows or bed clothing of any kind.

Law students are advised to make early application as assignment of rooms is made soon after the middle of May. The applicant should state that he has been accepted for admission to the School of Law. All dormitory rooms are to be occupied under the rules and regulations established by the University. Law students are not required to live in the University dormitories.

The General Bulletin of the University contains the following state-

ments concerning the reservation of dormitory rooms:

Rooms are reserved only for applicants who have been officially accepted by the University, upon application to the Director in the Business Division, Duke Station, Durham, North Carolina. (In requesting rooms in the log cabins, applications should be addressed to the Dean of the Law School.) cabins, applications should be addressed to the Dean of the Law School.) A reservation fee of \$25.00 must accompany the application for a room. The reservation fee is deducted from the room charges at the time of registration for the fall semester. An applicant who is accepted and has a room reserved is not entitled to a refund of the reservation fee unless the request is made on or before August 1.

A resident student in order to retain his room for the succeeding year is requested to make application accompanied by a reservation fee of \$25.00 between April 15 and May 15 at the office of the Director in the Business Division. All rooms which have not been reserved on or before May 15 will be considered vacant for the succeeding year and will be reserved in the order in which applications are made.

the order in which applications are made.

Rooms are rented for no shorter period than one semester, unless by special arrangement with the Director in the Business Division. A period of occupancy other than a semester or quarter and without special arrangement will be charged at a minimum rate of \$1.00 each day.

The authorities of Duke University do not assume the responsibility of

selecting and assigning roommates, though they will gladly render any

assistance possible.

Each student is expected to supply necessary sheets, blankets, pillows, rugs, and curtains. Furniture, beds and mattresses (39" x 74"), tables, chairs, dressers, mirrors, and window shades are furnished by the University.

Board may be secured at approximately \$25.00 per month at the University Union.

The cost of law books will average, through the three years, between \$20.00 and \$30.00 per semester.

SCHOLARSHIPS AND STUDENT AIDS

A limited number of scholarships covering tuition and matriculation fees (\$250) are available to first-year students, graduates of approved

American universities and colleges, who are in need of such assistance. Applicants must have made excellent records in their college work and must show unusual promise of success in the study of law.

Applications for scholarships should be presented before May 1 to the Dean of the Law School, together with a transcript of college work and letters of recommendation from responsible persons, certifying to the character and fitness of the applicant.

Other scholarships are awarded, as funds may permit, to students who have spent a year or more at the Law School. There are also a number of positions as assistants in the Law Library and as research assistants which are open to students particularly in their second or third year, who do not receive other aids from the University.

Scholarships are, in addition, granted each year to the three students with the best scholastic records in the first- and second-year classes. Under this plan scholarships were awarded for 1940-41 to the following members of the first-year class of 1939-40: Reid Hambrick, Spartanburg, S. C.; Maurice Winger, Kansas City, Mo.; Nicholas P. Varlan, Rochester, N. Y.; and to the following members of the second-year class in that year: Benjamin S. Horack, Durham, N. C.; Numa L. Smith, Jr., High Point, N. C.; George T. Frampton, Scarsdale, N. Y.

The University administers certain endowed loan funds for the benefit of students who are not financially able to meet their expenses, for the purpose of aiding worthy students who have established a satisfactory record at the School to continue their education.

Two funds have been provided out of which small loans may be made to tide students over temporary financial emergencies arising during the course of the year. One of these was supplied by the Law School Guild and is limited as to amount and duration of loan. The other is due to the generosity of Mr. P. Frank Hanes of the Winston-Salem bar and is limited to the needs of selected students. These funds are administered by a committee of the Faculty.

AWARDS

Willis Smith Prize. Mr. Willis Smith, a member of the Raleigh bar and Chairman of the Law School Committee of the Board of Trustees of Duke University, awards each year to that member of the graduating class of the Law School who has maintained the highest scholastic average during the entire three years of law school work, a prize consisting of a set of books selected personally by Mr. Smith each year for that purpose. The winner of the prize for 1932 was Jeter S. Ray, Newport, Tenn.; for 1933, William B. McGuire, Jr., Franklin, N. C.; for 1934, Robert Gilpin Seaks, Harrisburg, Pa.; for 1935, Erle Pettus, Jr., Birmingham, Ala.; for 1936, Edward Rubin, Los Angeles, Calif.; for 1937, William R. Perdue, Jr., Macon, Ga.; for 1938, Thomas E. Butterfield, Jr., Bethlehem, Pa.; for 1939, Gustav B. Margraf, Cape Girardeau, Mo.; and for 1940, Joseph Laufer, Durham, N. C.

ORDER OF THE COIF

A chapter of the Order of the Coif, national legal scholarship society, has been established at Duke University School of Law. Its purpose is "to foster a spirit of careful study and to mark in a fitting manner those who have attained a high grade of scholarship." Election is restricted to the ten per cent of the Senior Class who have attained the highest rank in their law school work. Those receiving this honor in the graduating class of 1940 were: Joseph Laufer, Durham, N. C.; Albert Harrell Pope, Dunn, N. C.; and Benjamin D. Raub, Jr., Easton, Pa.

CONDUCT OF STUDENTS

The University expects of its students loyal and hearty co-operation in developing and maintaining high standards of conduct as well as of scholarship. The University, therefore, reserves the right, and matriculation by the student is a concession of this right, to compel the withdrawal of any student whose conduct at any time is not satisfactory to the University, even though no specific charge be made against the student.

RECREATIONAL FACILITIES

The University is located about two miles from the business district of Durham on wooded hills constituting part of the five-thousand-acre Duke Forest, which is maintained by the School of Forestry. Within a short distance from the campus are facilities for golf, horseback riding, and woodland hiking. These activities are available the year round in the mild climate of the Piedmont section of North Carolina. Students of the Law School are entitled to the use of the University gymnasium, tennis courts, swimming pool, and similar privileges without cost. Motion pictures are shown in the Page Auditorium twice a week, and concert programs, recitals, lectures, and plays are presented frequently.

STUDENTS CALLED TO MILITARY SERVICE

In so far as possible, the Administration of Duke University and the Faculty of the School of Law will endeavor to see that no student suffers loss of academic standing or of fees paid to the University because of being called into the armed forces of the United States. Individual cases will be considered on their merits as they arise.

IV. ADMISSION OF STUDENTS

DIRECTIONS TO APPLICANTS FOR ADMISSION

Applications should be made on the prescribed Law School application blanks which will be sent upon request, and no application is complete until all required documents are on file. Each application for regular or advanced standing must be accompanied by a complete transcript of record and evidence of graduation or right to honorable withdrawal from the institution from which credit is offered. To the application blank should be attached a recently made personal photograph. Letters from responsible persons, certifying to the character and ability of the applicant, are required.

It is desired that students may be selected who give promise of leadership in some of the various phases of professional activity. It is recognized that such selection is difficult. However, graduation from Duke University School of Law is intended to constitute evidence of capacity for superior work in some branch of the profession of law. Applicants for admission and their sponsors are requested to keep this fact in mind.

REQUIREMENTS FOR ADMISSION

Any person may be admitted as a candidate for the degree of Bachelor of Laws (1) who is a graduate of a college of approved standing, or (2) who has completed in a college of approved standing work equivalent in number of units to three fourths of that required for graduation and whose college work in its entirety shows an average grade equal to that required for graduation, the requirement in each case being determined by the regulations of the college where the work was taken.

COMBINED COURSE

A number of colleges, upon application by their students, have permitted those who have completed three years of undergraduate work, to enter the Law School of Duke University and upon the satisfactory completion of the first year of law school work to receive their Bachelor of Arts degrees from such colleges. It is suggested that students desiring to enter Duke University School of Law make inquiry of their proper college authorities regarding this point.

A student in either of the Liberal Arts Colleges of Duke University may complete in six years a combined course wherein he will have received his academic degree and also the degree of Bachelor of Laws. This arrangement is made possible under the following recommendations of the Faculty of the arts colleges:

Students who have completed with not less than a "C" average at least ninety-six semester hours of undergraduate work in the pre-legal group of studies in Duke University may on the approval of the Dean of the

Undergraduate College transfer to this Law School and become eligible for the Bachelor's degree on the satisfactory completion of the full twenty-

six semester hours of work of the first-year class in this School.

It is understood that this provision shall apply solely to eligible Duke University undergraduates, and that not less than the full first-year's work of the Law School will be acceptable for credit toward the Bachelor's degree.

It should be noted that while the Combined Course plan of securing two degrees is restricted to those who have taken the "pre-legal course," general admission to the Law School is not so restricted.

ADMISSION TO ADVANCED STANDING

Any person, who has complied with the requirements for admission set forth in this announcement, prior to the commencement of his law study, who shall present evidence of the satisfactory completion of any part of the curriculum at any law school which is a member of the Association of American Law Schools, and who is eligible for readmission to the law school from which he proposes to transfer, may be admitted to advanced standing, subject to such rules as would be applicable to students in this School having a comparable scholastic record. Provisional credit for courses so completed shall be given, final credit for such work to be conditioned on the completion of at least one full year of law study in this School with an average of at least five points above the passing grade. Adjustment of credit for work done in such other law schools may be by vote of the Faculty.

CANDIDATES FOR GRADUATE DEGREES

Applications for admission to graduate study should be addressed to the Dean of the Law School and should include transcripts of records of legal and pre-legal work. For the requirements for the graduate degrees see pages 24 and 25.

Further information will be sent upon request. Please address

THE DEAN OF THE SCHOOL OF LAW DUKE UNIVERSITY Durham, North Carolina

V. REQUIREMENTS FOR BACHELOR OF LAWS DEGREE—STUDENT PROGRAMS

BACHELOR OF LAWS DEGREE

Upon favorable recommendation of the Faculty, the degree of Bachelor of Laws will be conferred on students who shall have successfully completed three years' study of law, the last full year of work immediately preceding the granting of such degree having been completed, except under extraordinary circumstances, in this School.

A student shall be deemed to have completed successfully three years' study of law if during this period he has

- (1) secured a passing grade in courses aggregating the number of semester hours in the first-year program, in required courses in other years, and in courses constituting its faculty-approved student minimum programs for the second and third years;
- (2) secured in every required course a grade not requiring repetition thereof; and
- (3) secured an average grade at least five points above passing in all work taken other than first-year courses, or, if such grade is lower than that above specified, an average grade of five points above passing in all work taken.

Students who shall have spent only their third year of study in residence in this School must have received an average grade at least five points above passing for that year.

THE FIRST-YEAR PROGRAM

All of the first-year courses are required for graduation, as is completion of the Readings Course described on page 30, and no second- or third-year courses may be elected until the student has secured grades not requiring repetition of any first-year courses or has made provision for the completion thereof.

The following courses comprise the work of the first year:

Subject Ho	urs	per semester
Contracts	. 3	3
Legal Research and Writing	. 2	2
Property		2
Torts	. 2	3
Criminal Law and Its Administration	. 3	
Introduction to Procedure	. 3	
Introduction to Equity		2
Negotiable Instruments and Banking		3
	15	15

SECOND- AND THIRD-YEAR PROGRAMS

The course in Legal Aid Clinic is required of those third-year students who have not been selected to take the course in Current Decisions II. The course in Legal Ethics is required of all third-year students. For descriptions of the content of these courses, see pages 31 and 32.

With the exceptions noted above, all courses offered for the second and third years are elective. For the guidance of second-year students in 1941-42, the Faculty recommends the inclusion of the following courses in their programs of study:

Subject	Hours	per	semester
Constitutional Law	2		3 2
Equity Conveyancing Pleading (Prerequisite to Practice)	3		2
Trusts Business Associations I	3		3
Contracts II Negotiable Instruments and Banking			3
	15		15

For the student who wishes to take, in his second year, courses other than those listed above, the following are suggested as suitable for study in the second year:

Subject	Hours	per semester
Family Law Landlord and Tenant		
Municipal Corporations	2	
Future Interests		3

It should be distinctly understood that the courses in this second list are not suggested as either more or less suitable for study in the third year than those not included therein. In the selection of courses in addition to or in substitution for those recommended above, the student should consult the course groupings appearing at another place in this bulletin, so that he may choose those courses which will contribute most directly to his work in the field of study to which he wishes to devote his major efforts in the third year. The student intending to enter the general practice of law is cautioned, however, not to sacrifice, through undue concentration, the acquisition of a broad foundation for his subsequent activities.

The courses included in the above lists and all other courses offered are described at pages 26 to 32 of this bulletin. The courses offered which are not included in the above lists comprise:

Subject	Hours	per sen	iester
Current Decisions I	1		1
Current Decisions II	1		1
Evidence	2		2
Legal Aid Clinic	3		2
Practice	2		2
Taxation	2		2
Administrative Law	2		
Business Associations II	3		
Conflict of Laws	3		
Debtors' Estates	3		
Insurance	2		
Legal Ethics			
Legal History	3		
Legislation	2		
Family Law Seminar			2
Federal Jurisdiction and Procedure			2
Labor Law			2
Legislation Seminar			2
North Carolina Statutes			2
Readings in Jurisprudence			
Regulation of Business			1
Regulation of Business Seminar			2
Roman Law: Comparative Law of Obligations			
Seminar in Legal History			2
Seminar in Federal Tax Problems			2

VI. GRADUATE WORK IN LAW

GRADUATE DEGREES

The School of Law confers two graduate degrees, the degree of Master of Laws (LL.M.) and the degree of Doctor of Juridical Science (S.J.D.).

REQUIREMENTS FOR ADMISSION TO GRADUATE STUDY

Any person who shall have received the first degree in law from a law school qualified for membership in the Association of American Law Schools and whose college course and law course combined shall have occupied at least six years, may be admitted as a candidate for the degree of Master of Laws. In exceptional cases an applicant who does not meet all the above requirements may, on vote of the Faculty, be admitted to candidacy for this degree where he is able to demonstrate that he is specially qualified, as by reason of practice or teaching.

Any person holding the degree of Master of Laws from this or any other law school which is qualified for membership in the Association of American Law Schools may, on vote of the Faculty, be admitted to candidacy for the degree of Doctor of Juridical Science, provided he completed

the work for the Master's degree with distinction.

The Faculty may, however, require of an applicant complying with this standard the publication of legal writings deemed satisfactory by the Committee on Graduate Study as a condition to admission to candidacy for this degree.

THE DEGREE OF MASTER OF LAWS

Upon favorable recommendation of the Faculty, the degree of Master of Laws will be conferred on students who have successfully completed during a period of residence at this School totaling at least one year a course of study approved by the Committee on Graduate Study.

The courses of study leading to this degree are designed to provide for the needs of two classes of students: (1) graduates of approved law schools who desire a fourth year of study for the purpose of undertaking an intensive study of some specialty, or who desire to broaden their legal education through the study of such subjects as jurisprudence and legal history; (2) graduates of approved law schools who desire to teach law or engage in legal research and who intend to become candidates for the degree of Doctor of Juridical Science.

One year of resident study is required for the degree of Master of Laws. No thesis is required. The course of study is prescribed by the Committee on Graduate Study after consultation with the individual student. Opportunity will be afforded the student to include in his program such second- and third-year law courses, not already completed, as are desirable for the rounding out or supplementing of his previous training. In some cases, courses in other departments of the University may be included. In the case of students whose interests lie in further preparation for practice, the course will normally include registration in subjects totaling twelve hours each semester. In the case of students interested primarily in legal research, a lighter schedule, so far as enrollment in formal courses is concerned, may be arranged. In cases where less than twelve hours' work is prescribed for either semester, the Committee on Graduate Study may require that the student complete the work undertaken with a grade considerably higher than that required of candidates for the first degree in law.

THE DEGREE OF DOCTOR OF JURIDICAL SCIENCE

Upon favorable recommendation of the Faculty, the degree of Doctor of Juridical Science will be conferred on students admitted to candidacy for that degree who complete and submit a monograph or series of essays suitable for publication and deemed by the Faculty to be of distinguished character. At least one academic year and, in the absence of an extension granted by the Faculty upon petition thereto, not more than three years, must elapse between the awarding of the Master's degree and the awarding of the degree of Doctor of Juridical Science. Students who have received the degree of Master of Laws from another law school must spend at least one year engaged in research at this School and may in addition be required to complete a course of study prescribed by the Committee on Graduate Study.

VII. COURSES OFFERED

1. GENERAL COURSES

Torts. Liability in damages for injuries to person and property inflicted intentionally, negligently, or innocently; justification and excuse; contributory negligence; proximate cause. Liability for false representations, defamation, inducing breach of contract, interference with business relations, unfair competition, strikes, etc. The measure of damages in tort cases. Bohlen, Cases on Torts (4th ed., by Harper). Two hours a week, first semester; three hours, second semester.

Professor Maggs

Introduction to Equity. The origin and jurisdiction of equity; equitable relief as based on the inadequacy or lack of a legal remedy; the relation of Equity and the common law; enforcement of equitable decrees; application of the discretionary maxims; injunction against tort and crime; specific performance of contract. Cases or materials to be announced. Two hours a week, second semester.

Equity. Powers of Courts of Equity and principles governing their exercise, with special emphasis on injunctions; general scope of the remedy of specific performance; bills of peace, interpleader, quia timet, and to remove cloud on title. Cook, Cases on Equity, one-volume edition (2d ed.). Two hours a week throughout the year.

PROFESSOR HORACK

Trusts. The nature, creation, and elements of a trust; charitable trusts; resulting and constructive trusts; administration of trusts; liabilities to third persons; transfer of the *cestui's* interest; persons bound by a trust; termination of a trust. Scott, *Cases on Trusts* (3d ed.). Three hours a week, first semester.

PROFESSOR LOWNDES

Conflict of Laws. A study of the territorial jurisdiction of courts, the enforcement of foreign judgments, and the problems arising when the operative facts of a case are connected with jurisdictions having different rules of law. A part of the course will be directed to the study of assigned problems, utilizing related cases in the casebook for the purpose. Cheatham, Dowling, and Goodrich, Cases and Other Materials on Conflict of Laws. Three hours a week, first semester.

Professor Cavers

Family Law. A seminar approach to the cases, statutes, and sociological theories covering the contract to marry, its formation and breach; marriage; annulment; divorce; separation; property rights; and international jurisdiction. Selected materials. Two hours a week, first semester. PROFESSOR BRADWAY

Family Law Seminar. A seminar approach to the efforts of the social sciences, including the law, to deal with the intricate and perplexing problems of the modern family. Readings are assigned in legal and sociological material. Class discussions are based upon some central topic, such as divorce, domestic relations courts, etc. Written reports required in lieu of an examination. Family Law is prerequisite. Two hours a week, second semester.

PROFESSOR BRADWAY

North Carolina Statutes. A study of selected statutes of North Carolina with discussion of their application, and an analysis of the decisions of the Supreme Court of North Carolina construing them. Two hours a week, second semester.

Professor Bryson

2. BUSINESS COURSES

Contracts. Sealed contracts; problems in the formation of simple contracts (making of promises and judicial standards of interpretation, offer and acceptance); the consideration doctrine; third party beneficiaries; assignments; Statute of Frauds, including legal effects of failure to comply; joint and joint and several contracts; the performance and breach of contract (conditions, order of performance, anticipatory breach); illegal bargains (types, nature and effect of illegality), discharge of contracts. Rules and principles of damages in contract actions. Shepherd, Cases and Materials on Contracts. Three hours a week, first semester; three hours, second semester.

Professor Shepherd

Contracts II. Specific performance as a remedy for breach of contract, with special attention to contracts for the sale of land and incidents of the vendor-purchaser relation. Mistake in integration: the Parol Evidence Rule and Reformation for Mistake. Cook, Cases on Equity (3rd ed.); Patterson, Cases and Materials on Contracts II, Vol. 2. Two hours a week, second semester.

PROFESSOR SHEPHERD

Negotiable Instruments and Banking. Negotiability; execution of negotiable instruments; formal requisites of negotiable instruments; liability of parties; negotiation; holders in due course; and discharge. Legal relations between customer and banker; duties of depositor and bank toward each other; collections, and banker's lien and set-off. Aigler, Cases on Negotiable Paper and Banking. Three hours a week, second semester.

PROFESSOR LOWNDES

Business Associations I. Emphasis is more on corporations than on partnerships, joint-stock companies or business trusts. In approximately the following order are studied: formation of these business associations, problems of their "entity," position of the management, ultra vires, stockholders' rights and powers, stock structure and classification of shares, function of corporate capital and its bearing on dividends and stock purchases, liability on subscriptions, watered stock, stock transfer, stockholders' suits. Brief survey is given of capital reductions, capital readjustments, fundamental corporate changes and marketing of securities, all of which are studied more in detail in the Finance and Accounting course. Ballantine and Lattin, Cases and Materials on the Law of Corporations, and selected materials on partnerships. Three hours a week, second semester.

Business Associations II—Finance and Accounting. A study of capital readjustments (but not reorganization of insolvents); capital, surplus and capital reductions; relation of accounting to ascertainment of funds available for distribution and other purposes, with introduction to book entries and emphasis on asset valuation; no-par stock; blank stock; preferred stock provisions with emphasis on the draftsman's problems and point of view; hybrid and convertible securities; corporate bonds and indentures; marketing and administrative control of corporate financing, including the provisions of relevant state or federal legislation. Latty, Cascs and Materials on Corporation Finance (mimeographed), and other selected materials. Three hours a week, first Professor Latty

Credit Transactions. Consideration of suretyship and guaranty, mortgages, letters of credit, trust receipts, contracts of accommodation parties on bills and notes, real property and chattel mortgages, pledges, conditional sales. Sturges, Cases on Credit Transactions (2d ed.). Two hours a week throughout the year.

PROFESSOR POTEAT

Debtors' Estates. A comparative study of the various legal devices available for the administration of debtors' estates—compositions, assignments for the benefit of creditors, receiverships and bankruptcy including proceedings for debtors' rehabilitation and corporate reorganization under the Bankruptcy Act. Poteat and Rostow, Cases on the Administration of Debtors' Estates. Three hours a week, first semester.

Insurance. The function and theory of insurance; insurable interest; making the contract; ascertainment and control of risk; waiver and estoppel; rights under life policies. Vance, Cases on Insurance (3d ed.). Two hours a week, first semester.

Associate Professor Sanders

Regulation of Business. See Public Law Courses, below, for description. Survey course, one hour a week; seminar, two hours a week, second semester.

Professor Cavers

3. PROPERTY COURSES

Property. Part I: Property in chattels, application of the concepts of possession and title in the law of personal property; bailment; artisan's lien; transfer of chattels by gift; sale and miscellaneous inter vivos transactions; emblements and fixtures. Special attention is given in Part I to judicial process and technique. Problems of chattel mortgages, pledges, and of sales financing are not considered in this course, except incidentally, but are reserved for the course in Credit Transactions. Latty, Cases and Materials on Chattel Transactions (mimeographed). Part II: Historical introduction to real property with a detailed consideration of the modern law of possessory estates in land, including the fee simple, the fee tail, the life estate, the estate for years, concurrent estates, and the incidents of possessory ownership relative to water, lateral and subjacent support, and air. Powell, Cases on Possessory Estates.

Two hours a week throughout the year.

Part II Professor Bolich

Conveyancing. Form and execution of deeds; description in deeds; incorporeal interests in land; adverse possession and prescription; covenants and agreements running with the land at law and in equity; estoppel by deed; recording and title registration. Kirkwood, Cases on Conveyances, and selected materials. Three hours a week, first semester.

PROFESSOR BOLICH

Landlord and Tenant. Treatment of certain incidents of the modern law of leases relating to business, residential, and agricultural properties, including the creation of leases, their general characteristics, possession, transfer, covenants, rents, security devices, and termination. Jacobs, Cases and Materials on Landlord and Tenant. Two hours a week, first semester.

Professor Bolich

Future Interests. Future interests in real and personal property; reversions; vested and contingent remainders; executory interests; rights of entry; possibilities of reverter; gifts to classes; powers; perpetuities; construction of wills and deeds as affecting the validity and characteristics of the interests created thereby. Powell, Cases on Future Interests (2d ed.). Three hours a week, second semester.

PROFESSOR BOLICH

Wills and Administration of Estates. The rationale of succession; mental capacity to make a will; undue influence and fraud; execution of wills; testamentary character and intent; integration of wills; revocation of wills; condition and mistake; revalidation of wills; function and necessity of probate and administration; grant of probate and administration; management, distribution and settlement of the estate. Mechem and Atkinson, Cascs on Wills and Administration (1st ed.). Three hours a week, second semester.

Professor McDermott

Trusts. See General Courses, page 26, for description. Three hours a week, second semester.

Professor Lowndes

4. PUBLIC LAW COURSES

Criminal Law and Its Administration. Survey of criminal procedure and of the lawyer's function in the administration of criminal justice; theories of crime and of punishment in the criminal law; consideration of the criminal act

and of the mental element in crime; specific offenses at common law and as developed by statutes; appropriate defenses in relation to the specific crimes. Harno, Cases and Materials on Criminal Law and Procedure (2d ed.). Three hours a week, first semester.

ASSOCIATE PROFESSOR SANDERS

Constitutional Law. Judicial protection against arbitrary governmental action; the history of the notion of a "higher law"; the concepts applied and the constitutional clauses relied upon; the development and application or particular doctrines protecting from arbitrary governmental action individuals with respect to their persons and individuals and corporations with respect to their property and business activities. The division of fields of control between the federal and the state governments. Mimeographed materials. Two hours a week, first semester; three hours, second semester.

PROFESSOR MAGGS

Administrative Law. Quasi-legislative and quasi-judicial functions of administrative tribunals, boards and officers. Constitutional limitations, growing out of the doctrine of the separation of powers and the doctrine of the non-delegability of legislative power, upon the creation and allocation of administrative functions. Practice and procedure before administrative tribunals, boards, and officers; constitutional limitations upon administrative procedure. Judicial control and review of administrative orders and decisions. Constitutional Law is prerequisite. Hart, An Introduction to Administrative Law, and selected materials. Two hours a week, first semester.

Professor Maggs

Labor Law. The National Labor Relations Act and related legislation. Federal and state anti-injunction statutes and their background. The law relating to strikes and the conduct of strikers, the labor agreement and the responsibility of unions. Selected materials. Two hours a week, second semester.

ASSOCIATE PROFESSOR SANDERS

Legislation. The interpretation of statutes; the subject matter and purpose of the statute; the context; associated words; parts of the statute in relation to the whole; extrinsic aids; statutes in relation to other statutes; statutes in relation to the common law; the applying of statutes; the operation and effect of statutes. DeSloovere, Cases on Interpretation of Statutes. Two hours a week, first semester.

PROFESSOR McDermott

Legislation Seminar. Special study and research with respect to specific legislative problems and projects, involving a complete survey of the nature and mechanics of the legislative process. Legislation is prerequisite. Selected materials. Two hours a week, second semester.

PROFESSOR MCDERMOTT

Municipal Corporations. The nature of municipal corporations; their external constitution; their internal constitution; their powers; their liabilities; remedies for and against municipal corporations. Stason, Cases on Municipal Corporations. Two hours a week, first semester.

PROFESSOR McDermott

Regulation of Business. A survey course considering the federal antitrust laws and their common law background and examining selected types of federal and state regulatory legislation. Assigned readings and mimeographed materials. One hour a week, second semester.

PROFESSOR CAVERS

Regulation of Business Seminar. An intensive study of a limited number of legal problems of business in their economic setting. A thesis is required. Open only to students enrolled in Regulation of Business. Two hours a week, second semester.

PROFESSOR CAVERS

Taxation. The principal taxes are considered. Special stress is laid upon the federal tax system and the major federal taxes are analyzed in some detail. The course includes the constitutional law of taxation, both in its broader aspects and in its narrower incidence upon the particular types of taxes. Lowndes, Cases and Materials on the Law of Taxation (mimeographed). Two hours a week throughout the year.

Professor Lowndes

Seminar in Federal Tax Problems. This course is designed for students desiring advanced work in federal taxation. In addition to a study of the administrative and procedural aspects of the federal tax system, emphasis is laid upon the interrelation of the various federal taxes, tax control, and analysis of some of the more complex provisions of the federal tax statutes. The method of instruction is by group discussions and personal conferences with the instructor. Assigned readings and mimeographed materials. Two hours a week, second semester.

PROFESSOR LOWNDES

5. JURISPRUDENCE COURSES

Readings. For students entering the School of Law in September, 1941, there will be several groups of required readings. One group will be in Legal History and one in Jurisprudence; other groups may be announced. There will be no class meetings in this course, but students may arrange conferences with instructors.

PROFESSOR BOLICH AND OTHER INSTRUCTORS

Readings in Jurisprudence. The purpose of this course is to acquaint the student with the main currents of thought in legal philosophy and jurisprudence since Aristotle. Especial emphasis will be placed on critical studies of legal methodology. Enrollment in the course is limited to five. Admission only with the consent of the instructor. Two credit hours. A one-hour discussion meeting will be held each week. First semester.

[To be arranged.]

Legal History. A study of the development of fundamental English and American legal institutions, followed by a historical consideration of certain doctrines of the common law. Assigned readings and discussion meetings. Three credit hours. First semester.

PROFESSOR BOLICH

Seminar in Legal History. This course is designed for graduate students, and will be offered only upon recommendation of the Committee on Graduate Study. Hours and credit to be arranged with the instructor upon approval of said Committee. Second semester.

PROFESSOR BOLICH

Roman Law: Comparative Law of Obligations. The course deals primarily with the Roman law of obligations, supplemented by references to the modern German, French, and Swiss law. Emphasis is placed on method rather than on content, and the primary object of the course is to give the student a better orientation in the modern American law of contracts and torts. Knowledge of a foreign language is not essential. Intended primarily for senior and graduate students. Admission only with the consent of the instructor. Two hours a week, second semester.

[To be arranged.]

6. PROCEDURE AND PRACTICE COURSES

Introduction to Procedure. An introductory study of the most commonly used procedural devices by which disputes are brought before the courts for adjustment, and the techniques employed in the judicial process for effecting these adjustments, including the control of the trial court by appellate tribunals. The course will also include a study of modern reforms of pleading in so far as they are pertinent. Arnold and James, Cases on Trials, Judgments and Appeals, and supplementary mimeographed material. Three hours a week, first semester.

Pleading. Remedial law as applied in code jurisdictions. The form, theory, and classification of civil actions and special proceedings, together with a complete analysis of the several pleadings available in such actions and special proceedings. Throckmorton, Cases on Code Pleading (2d ed.). Three hours a week, first semester.

PROFESSOR BRYSON

Practice. The practical work of lawyers; drafting instruments; preparation of pleadings and trial briefs; the various trial methods and steps taken in the trial of the case; removal of cases from state to federal courts; noting and perfecting appeals; the appeal briefs; procedure in the Supreme Court. Selected materials. Two hours a week throughout the year.

Professor Bryson

Evidence. Admissions in pleadings, and stipulations; burden of proof, and presumptions; judicial notice; determination of admissibility of evidence; documentary evidence; witnesses; opinion testimony; the hearsay rule; circumstantial evidence; real evidence; evidence illegally obtained; contracts altering or waiving rules of evidence. Tracy, Cases on Evidence. Two hours a week throughout the year.

Professor McDermott

Federal Jurisdiction and Procedure. Functioning of federal courts including such topics as original jurisdiction, removal of causes, the statutory court, appellate jurisdiction of the Circuit Courts of Appeal and Supreme Court. Consideration will also be given to the rules of civil procedure for the District Courts of the United States. Frankfurter and Shulman, Cases on Federal Jurisdiction and Procedure, revised edition, and supplementary mimeographed material. Two hours a week, second semester.

PROFESSOR POTEAT

Legal Ethics. A seminar approach to the legal problems of the lawyer and the profession. Readings are assigned in legal biography, law reform, the history of the profession, legal aid work. Class discussions cover canons of ethics, statutes, cases, opinions of grievance committees dealing with the daily problems of the practicing lawyer. A written report is required on some phase of the reform of the administration of justice. Required of all third-year students. Selected materials. One hour a week, first semester.

Professor Bradway

Legal Aid Clinic. The objectives of the course are: to give the student experience in actual cases; to develop creative skills, techniques and mental habits; to encourage a sense of responsibility to client, court, profession and community. Students under supervision of staff attorneys and in co-operation with members of the Durham bar, court officials and social and other professional agencies in the community, engage, so far as students may, in the handling of actual cases from the first interview with the client until the final disposition of the problem by litigation or otherwise. In the first semester, class discussions are devoted to problems of law office organization such as dictation of letters, keeping records of cases and organizing working time; problems involved in the use of public records; interviewing clients, and planning a campaign in a legal case. Individual study of selected problems, involving the use of digests, encyclopedias, case reporter series, legal periodicals. etc.; the marshaling of authorities and preparation of memoranda of law and opinions. Trial briefs are prepared for lawyers in active practice. In the second semester, the emphasis is on drafting legal documents, dealing with members of other professional groups as expert witnesses, working with two or more clients in conciliation proceedings. Appellate briefs are written for lawyers in active practice. Opportunity is afforded for special work in fields of particular interest. The course affords practical applications of the principles of legal ethics and legal etiquette. Students are expected to demonstrate adaptability to office routine, dependability in action, maturity of legal judgment. Required of all third-year students except those selected for Current Decisions II. Bradway, Legal Aid Clinic, Instructions to Students. Three hours a week, first semester; two hours a week, second semester (in two sections). PROFESSOR BRADWAY AND LEGAL AID CLINIC STAFF

Bar Association Activities. Advisory work in connection with voluntary student participation in the activities of the Duke Bar Association. Not for credit.

PROFESSOR HORACK

7. LEGAL RESEARCH AND WRITING

Legal Research and Writing. Part I: A historical study of the development of law books with particular emphasis upon the more important sets and classes of volumes; actual practice in the use of the books themselves for the purpose of developing facility in legal research. Part II: During the second half of the first semester and the first half of the second semester, each student will be required to prepare a series of six to eight memoranda of law. Each memorandum will embody research on a question of law connected with a different one of the student's first-year courses; its subject will be selected by the instructor of the course involved after conference with the student; the research and writing will be under the supervision of that instructor. Part III: Exercises in the form, substance, and technique of brief writing; preparation of sample briefs; moot court arguments based on an earlier brief. Two hours a week throughout the year.

Mr. Roalfe, the First-year Faculty, Professor Bradway, AND THE LEGAL AID CLINIC STAFF

Current Decisions I. In the first semester, instruction is given in the preparation of comments on appellate court decisions by means of class analysis and criticism of comments published in law reviews and similar comments prepared by the class. In the second semester, each student, after thorough research and consultation with faculty members, prepares comments on decisions selected by the class from advance sheets. Open only to superior second-year students declared eligible by the Faculty. One hour throughout the year.

PROFESSOR CAVERS AND STAFF

Current Decisions II. Preparation, as in Current Decisions I, of comments and longer notes on significant recent decisions. Open only to, and, if elected in lieu of Legal Aid Clinic, required of superior third-year students declared eligible by the Faculty. One hour throughout the year.

PROFESSOR CAVERS AND STAFF

Student Editorial Work. Selected students, members of the class in Current Decisions, may undertake the preparation of studies for publication in Law and Contemporary Problems under the supervision of the editor. Credit for this work will be given in Current Decisions.

PROFESSOR CAVERS

The foregoing courses as offered for the year 1941-42 are subject to such changes as may be found necessary.

Upon recommendation of the Committee on Graduate Study, seminars not listed in the bulletin may be created or arrangements made for supervision of special research by individual students in any subject.

VIII. STUDENTS

ENROLLMENT FOR 1940-41

FIRST-YEAR CLASS

Arwe, Kenneth Jay A.B., Dartmouth College, 1940.

Bonk, 'Henry Francis B.S., American International College, 1940.

Canavan, Charles Paul B.A., American International College, 1940.

Carmichael, Oliver Cromwell, Jr. B.A., Vanderbilt University, 1940.

Cockey, John Owings, Jr. Ph.B., Dickinson College, 1940.

Dailey, Frank Walter Duke University, 1937-40.

Dube, Bertram James A.B., Duke University, 1940.

Emig, Russell Stewart

A. B., Albion College, 1940.

Frase, Milan E. A.B., Kent State University, 1940.

Golis, Paul

A.B., Albright College, 1940.

Greenwood, Porter

A.B., Duke University, 1939.

Henderson, Charles Jenkins Duke University, 1937-40. Hesselgren, Oliver Gilbert, Jr.

E.M., Colorado School of Mines, 1940.

Krug, Orland Harry A.B., The Municipal University of Wichita, 1940.

Latham, James Farr Duke University, 1937-40.

Lofton, John Marion, Jr. B.S., College of Charleston, 1940.

Lyle, John Robert

A.B., Duke University, 1940.

McCarten, George Campbell, Jr. A.B., Baker University, 1940.

McDermott, Raymond Lipscomb Duke University, 1937-40.

Mackay, James Armstrong A.B., Emory University, 1940.

Martin, Sidney Allen A.B., The Municipal University of Wichita, 1940.

Mimms, Carney Wilson Ocala, Fla. University of Florida, 1937-39, Duke University, 1939-40.

Moore, Robert Field Duke University, 1937-40.

Morrow, Henry Walton Shepherd State Teachers College, 1936-40. Keene, N. H.

Hartford, Conn.

West Springfield, Mass.

Nashville, Tenn.

Glyndon, Md.

Dunkirk, N. Y.

Hudson Falls, N. Y.

Detroit, Mich.

Cuyahoga Falls, Ohio

New Milford, Pa.

Lebanon, Va.

Charlotte, N. C.

Ft. Thomas, Ky.

Hoisington, Kan.

Wadesboro, N. C.

McClellanville, S. C.

Bloomsberg, Pa.

Kansas City, Kan.

Durham, N. C.

Atlanta, Ga.

Pratt, Kan.

Trenton, N.J.

Shepherdstown, W. Va.

Stuttgart, Ark. Pattillo, Charles Leon B.S., Arkansas State Teachers College, 1940. Roberts, Leo Wilson A.B., Fairmont State Teachers College, 1940. St. Albans, W. Va. Russell, Henry Hawley Coral Gables, Fla. A.B., Duke University, 1940. Rutledge, Ivan Cate Cleveland, T A.B., Carson-Newman College, 1934; A.M., Duke University, 1940. Cleveland, Tenn. Shepard, Sam Groover New Orleans, La. B.A., Furman University, 1940. Bethlehem, Pa. Sigmon, Jackson Marcus A.B., University of Pittsburgh, 1938; M.A., Tufts College, 1939. Smart, Tom Davis Fort Smith, Ark. Duke University, 1937-40. Smith, Edward Sherman Scarsdale, N. Y. B.S., Pennsylvania State College, 1935. Favetteville, N. C. Tally, Joseph Oscar, Jr. A.B., Duke University, 1940. Rockford, Ala. Teel, Harry Rudd B.S., Howard College, 1940. Hanover, Va. Winston, Robert Tunstall, Jr. A.B., Randolph-Macon College, 1940. Wolters, William Gustave Chicago, Ill. Northwestern University School of Commerce, 1937-40. Worrill, Edmund Hood Leesburg, Fla. Georgia School of Technology, 1937-38; Duke University, 1938-40. SECOND-YEAR CLASS

Dovlestown, Ohio Ault, William Reign B.S., A.B., Kent State University, 1938. Webster Groves, Mo Berkemeyer, Donald Johnston A.B., Oberlin College, 1939. Elmhurst, N. Y. Bolte, Henry Ferdinand A.B., Duke University, 1939. Durham, N. C. Boutwell, Rufus Cecil, Jr. A.B., Duke University, 1940. Breckenridge, John B. Plattsburg, Mo. A.B., William Jewell College, 1939. Maryville, Tenn. Brown, B. Horace B.A., Maryville College, 1939. Brown, Milton Haynes B.S. in Commerce, Carson-Newman College, 1939. Erwin, Tenn. Carnahan, A. Vernon Saltsburg, Pa. A.B., Brothers College, Drew University, 1939. Charleston, W. Va. Cook, Nicholas Charles B.S., Catholic University of America, 1937. Floral Park, N. Y. Donovan, Frank X. A.B., Elon College, 1939. Morristown, N. I. Doyle, James Jerome B.A., Rutgers University, 1939. Everett, Robert James Kingston, N. Y. A.B., Duke University, 1940. Marietta, Ohio Fogle, Charles D., Jr. A.B., Marietta College, 1939. Fuller, Donald Whitcomb Endicott, N. Y. A.B., Hamilton College, 1939. Fuston, Sam Del Murfreesboro, Tenn.

A.B., Duke University, 1940.

Hambrick, Jackson Reid A.B., Wofford College, 1938.

Lamberson, Ralph Tiffin A.B., University of Michigan, 1938.

Lohr, William James A.B., Baldwin-Wallace College, 1939.

Lundholm, John Edward A.B., Catawba College, 1939. McCall, Samuel Horace, Jr.

B.S., Davidson College, 1939.

Metz, Jean Lois Duke University, 1936-39.

Nelson, Frederick A.B., University of Washington, 1939.

Owens, Herman Franklin, Jr. The Citadel, 1936-37; Duke University, 1937-39.

Pollack, George Bernhardt B.A., Rutgers University, 1939.

Ralston, Adolph Henry A.B., Duke University, 1940.

Repko, John Francis A.B., Temple University, 1939.

Richardson, C H, Jr.
A.B., Bucknell University, 1938; A.M., 1939.

Truesdale, Sidney Louis A.B., Duke University, 1939. Unger, Maurice Albert

A.B., Duke University, 1940.

Varlan, Nicholas Peter A.B., Syracuse University, 1939.

Winger, Maurice A.B., William Jewell College, 1939. Spartanburg, S. C.

Colon, Mich.

Bay Village, Ohio

Wildwood, N. I.

Trov. N. C.

Jersey City, N. J.

Seattle, Wash,

Fountain, N. C.

Perth Amboy, N. J.

Middlesboro, Ky.

Freeland, Pa.

Lewisburg, Pa.

Winston-Salem, N. C.

Patchogue, N. Y.

Rochester, N. Y.

Kansas City, Mo.

THIRD-YEAR CLASS

Arst, Norton Jerome A.B., Louisiana State University, 1938.

Barkman, Francis Elwood A.B., St. John's College, 1938.

Bragg, Harold Hoffman A.B., Baker University, 1938.

Carr, Aute Lee A.B., Butler University, 1938.

Cooprider, Virgil Wayne A.B., Kansas State Teachers College, 1938.

Dixon, Daniel Robert A.B., The College of William and Mary, 1937.

Fischer, Charles Henry, Jr. A.B., Duke University, 1938. Frampton, George Thomas A.B., Duke University, 1938.

Gentithes, George Harry A.B., Mount Union College, 1938.

Gordon, Eugene Andrew A.B., Elon College, 1940.

Harvey, Thomas William, Jr. A.B., Marshall College, 1939.

Horack, Benjamin Shambaugh A.B., Duke University, 1939. Drew. Miss.

Cumberland, Md.

Dodge City, Kan,

Grover Hill, Ohio

Pawnee, Okla.

Rocky Mount, N. C.

West Haven, Conn.

Scarsdale, N. Y.

Warren, Ohio

Brown Summit, N. C.

Huntington, W. Va.

Durham, N. C.

Kerr, Ben Ransom Murfreesboro, Tenn. A.B., Duke University, 1939. New Haven, Conn. Leavenworth, Robert Wing A.B., Duke University, 1938. Lenox, Walter Stanley A.B., Duke University, 1938. Ridgefield Park, N. I. Lipscomb, Woodrow Pershing A.B., Duke University, 1938. Hinton, W. Va. McCormack, Edward Joseph Irvington, N A.B., University of Newark, 1935; B.S., Rutgers University, 1937. Irvington, N. J. Mack, Edwin Van Tuyl Rutherfordton, N. C. A.B., Duke University, 1938. Allen, Md. Malone, William Frank A.B., Western Maryland College, 1938. Branford, Conn. Marshall, Archibald George A.B., Duke University, 1939. Mattocks, James Richardson A.B., High Point College, 1938. High Point, N. C. Mims, Frank Meyer B.A., The University of New Mexico, 1938. Mountainair, N. M. Moore, Hervey Studdiford, Jr. Trenton, N. J. A.B., Duke University, 1939. North Platte, Neb. Moran, John William A.B., Lenoir-Rhyne College, 1938. Moscoso, Guillermo Mayaguez, P. R. University of Puerto Rico, 1932-35. Rebman, Andrew Frederick, III A.B., Duke University, 1938. Courtland, Ala. Schultz, Herman Louis, Jr. B.S., State University of Iowa, 1938. Belmond, Iowa Sink, Henry Harrison Greensboro, N. C. A.B., Duke University, 1939. Smith, LaRue, Jr. Great Falls Stanford University, 1933-35; Montana State University, 1935-38. Great Falls, Mont. Smith, Numa Lamar, Jr. B.A., Furman University, 1938. High Point, N. C. Stack, Warren Carlisle Monroe, N. C. A.B., Duke University, 1939. Watson, William Harry, Jr. A.B., Dartmouth College, 1938. Keene, N. H. Wilmington, Del.

Wherrett, Norman Lewis A.B., Duke University, 1938. Williams, Berry Collins A.B., Duke University, 1938.

Williams, Bill Justin Fayetteville, Tenn. A.B., Duke University, 1938.

GRADUATE STUDENTS

Fayetteville, Tenn.

McKenna, Robert Allen Miami Beach, I A.B., Dartmouth College, 1932; LL.B., University of Pittsburgh, 1936. Miami Beach, Fla. Durham, N. C. A.B., West Virginia Wesleyan College, 1926; M.A., University of Michigan, 1931; J.D., Indiana University, 1935. Reese, Seward Phillips

UNCLASSIFIED STUDENTS

Neeley, William Walter Durham, N. C. LL.B., University of Arkansas, 1939. Silk, Leonard M. Atlantic City, N. J. A.B., University of Wisconsin, 1940.

Watson, John Dargan

A.B., Furman University, 1925; B.S., University of North Carolina, 1928; M.S., 1932; Sc.D., Harvard University, 1940.

INSTITUTIONS REPRESENTED

Albion College Albright College American International College Arkansas State Teachers College Baker University Baldwin-Wallace College **Bucknell University** Butler University Carson-Newman College Catawba College Catholic University of America College of Charleston College of William and Mary Colorado School of Mines Dartmouth College Davidson College Dickinson College Drew University Duke University Elon College Emory University Fairmont State Teachers College Fletcher School of Law and Diplomacy Furman University Hamilton College High Point College Howard College Indiana University Kansas State Teachers College Kent State University

Lenoir-Rhyne College Louisiana State University Marietta College Marshall College Maryville College (Tennessee) Mount Union College Municipal University of Wichita Northwestern University Oberlin College Pennsylvania State College Randolph-Macon College Rutgers University Shepherd State Teachers College St. John's College, Maryland State University of Iowa Syracuse University Temple University University of Arkansas University of Michigan University of Montana University of New Mexico University of Pittsburgh University of Puerto Rico University of Washington University of Wisconsin Vanderbilt University Washington and Lee University Western Maryland College William Jewell College Wofford College

STATES REPRESENTED

Alabama, Arkansas, Connecticut, Delaware, Florida, Georgia, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Puerto Rico, South Carolina, Tennessee, Virginia, Washington, West Virginia, Wisconsin. Total, 33.

GENERAL SUMMARY

First-Year Class 3	7
Second-Year Class	1
Third-Year Class 3	5
Graduate Students	2
Unclassified Students	3
-	
Total Enrollment	8
Total Number of Institutions Represented	
Total Number of States Represented	3

DEGREES AWARDED IN JUNE, 1940

BACHELOR OF LAWS

Adams, Margaret Louise Esterly, Pa. A.B., Duke University, 1938.

Arnold, Herman Ross, Jr. Jacksonville, Ala. B.A., Furman University, 1937.

Beattie, Frank John New London, Ohio A.B., Oberlin College, 1931.

Daniels, George Neil Elkins, W. Va. B.S., Davis and Elkins College, 1932.

Foster, Elliott Orman, Jr.
A.B., Bates College, 1937.

Garber, Murray Roger

Bradford, Pa.

Garber, Murray Roger Bradford, Pa.
A.B., Duke University, 1938.

Gracev, Hugh Catron Franklin, Tenn.

Gracey, Hugh Catron Franklin, Tenn.
B.S., Davidson College, 1937.

Harris, Roger Kennedy Newport, Ark.

A.B., Duke University, 1937.

Hassel, Merrill Lynnwood Bart, Pa.
A.B., Duke University, 1938.

Hayes, Johnson Jay, Jr. Wilkesboro, N. C. B.A., Wake Forest College, 1937.

Hendricksen, Burnell Howe Viborg, S. D.
A.B., University of South Dakota, 1938.

Hovey, George Dunmore
B.S., Lafayette College, 1937.

Atlantic Beach, Fla.

Josephs, Alex Rustin Charlotte, N. C. Centre College, 1934-35; Duke University, 1935-37.

Kecne, Spotswood Hughes Ashland, Va. A.B., Randolph-Macon College, 1937.

Klein, Joseph Chicago, Ill. Northwestern University, first semester, 1933-34; Wright Junior College, 1934-35; Northwestern University, 1935-37.

Koop, Charles Thomas Islip, N. Y. A.B., Duke University, 1938.

Laufer, Joseph Durham, N. C.
Karls Gymnasium, 1925-27; University of Berlin, 1927-28; University of Heidelberg, 1928-29; University of Tübingen, 1929-31.

Little, James Crawford Raleigh, N. C. A.B., Duke University, 1938.

McCoy, John Oliver Glen Jean, W. Va. A.B., Duke University, 1938.

Malmquist, Tord Vincent A.B., Marshall College, 1937.

Missal, Harold Milton Bristol, Conn. Ph.B., Dickinson College, 1935.

Moore, John Shelby Bridgeport, W. Va. A.B., Duke University, 1937.

Page, Hugh Alexander, Jr. Clayton, N. C. A.B., Duke University, 1940.

Pope, Harrell Dunn, N. C. A.B., Duke University, 1938.

A.B., Lafayette College, 1937.

Poyner, James Marion Raleigh, N. C.
B.S., North Carolina State College of Agriculture and Engineering, 1935; M.S., 1937.

Raub, Benjamin Dimmick, Jr. Easton, Pa.

Rouzer, Elmer Ellsworth
A.B., Duke University, 1938.

Hagerstown, Md.

Shepard, James Schumann
A.B., Wabash College, 1937.

Stone, Russell DeLeon
A.B., Duke University, 1938.

Tunnell, Robert White

Wilmington, N. C.
Georgetown, Del.

A.B., Muskingum College, 1937.

Turner, Charles Fletcher
A.B., Duke University, 1938.

Georgetown, Del.
Birmingham, Ala.

Vandenburgh, Edward Clinton, III Sioux City, Iowa
B.S., Iowa State College of Agriculture and Mechanic Arts, 1937.

Wanless, Julian Thor Springfield, Ill. A.B., DePauw University, 1937.

A.B., DePauw University, 1937.

Weinstein, Maurice Aaron Salem, N. J.

A.B., Duke University, 1938.

Welfare, Bradley Lamar, Jr. Winston-Salem, N. C. A.B., Duke University, 1937.

MASTER OF LAWS

Carswell, Robert McLean Kissimmee, Fla. LL.B., John B. Stetson University, 1938; A.B., 1939.













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